

Distressing Unusual Experiences, Childhood Adversity and Affect.

Nedah Basit

May 2017

A thesis submitted in partial fulfilment of the requirements of the University of
East London for the Professional Doctorate in Clinical Psychology

ACKNOWLEDGEMENTS

I would like to thank Dr. David Harper for his support and guidance throughout the write-up of this thesis. I also owe much appreciation to Dr. Suzanne Jolley for her advice during the completion of my thesis, as well as the invaluable support she has offered to me both prior and during clinical training. I would also like to extend a thank you to all the participants who were involved in the three original studies.

I would also like to thank my family and friends who have supported me throughout my three years of training, and offered many reassuring words along the way. I would particularly like to thank my husband, Muhit, for his endless support, patience and encouragement.

ABSTRACT

Background: Developing a better psychological understanding of unusual experiences (UEs) in a child and adolescent population has become an important area of research. Presently, much of our understanding of UEs has derived from psychological models of psychosis in adults. There is now a robust evidence-base supporting the relationship between childhood adversity (CA) and psychosis in adulthood, and researchers have begun to study the psychological processes involved in this relationship. Importantly, associated psychological processes appear to differ according to the type of experience, suggesting targeted approaches for therapy development. Research is needed to test these associations, and the potential applicability of theory and therapies, in children and young people.

Aims: This study aimed to investigate specific associations between CA and distressing paranoia, voice-hearing, and visual experiences in a child and adolescent population, and consider the role of negative affect, schemas, and dissociative experiences as mediating components within this association.

Method: A cross-sectional design, using secondary data analysis was adopted. A total sample of 249 participants, aged 8-18 years, from community and inpatient Child and Adolescent Mental Health Services (CAMHS) was comprised of three smaller, original studies which had also investigated alternative psycho-social correlates of UEs. Participants completed self-report questionnaires which measured UEs, previous experiences of adversity, negative affect, beliefs about oneself and others, and dissociative experiences. Hypothesised associations and mediating relationships were tested using correlational, between groups, and regression analyses.

Results: The presence of more than one adverse experience was associated with severity of paranoia, negative affect, and negative self-evaluations. In line with hypotheses, negative affect and negative self-beliefs partially mediated the relationship between CA and distressing paranoia, and paranoia was not

associated with dissociation. Contrary to hypotheses, CA was not independently associated with voice-hearing, visual experiences or dissociative experiences. Both voice-hearing and visual experiences were independently associated with negative affect, negative self-evaluations, and dissociative experiences.

Discussion: The findings support the application of adult models of paranoia and interventions that target adverse experiences, negative affect and enhance positive self-beliefs in childhood. The application of adult models of voice-hearing and visual experiences was not supported and requires further investigation. Future directions for research and clinical implications for both services and broader social initiatives are discussed.

TABLE OF CONTENTS

1. INTRODUCTION	10
1.1. Overview	10
1.2. Terminology	10
1.3. Historical Context	11
1.4. The Continuum of Unusual Experiences.....	12
1.4.1. Unusual Experiences in the General Adult Population	12
1.4.2. Prevalence of Unusual Experiences in the General Child and Adolescent Population	13
1.4.3. Unusual Experiences, Trajectories, and Associations with Mental Health in Childhood and Adolescence	15
1.4.4. Clinical Implications for Unusual Experiences in Childhood and Adolescence.....	18
1.5. Conceptualisations of Psychosis	19
1.5.1. Cognitive Models.....	20
1.5.2. Paranoia.....	21
1.5.3. Voice-Hearing	23
1.5.4. Traumagenic Neurodevelopment Model	25
1.6. Childhood Adversity.....	25
1.6.1. Definitions and Prevalence	26
1.6.2. Impact of Childhood Adversity on Child Development	26
1.6.3. Mental Health Outcomes.....	28
1.6.4. Childhood Adversity and Psychosis	29
1.7. The Focus of the Current Study	30
1.8. Literature Review of Childhood Adversity and Unusual Experiences in a Child and Adolescent Population	31
1.8.1. The Relationship Between Childhood Adversity and Unusual Experiences	32
1.8.2. Childhood Adversity, Unusual Experiences, and Associations with Psychological Processes	36
1.8.3. Specific Unusual Experiences.....	37
1.9. Rationale, Aims, and Hypotheses	39
2. METHOD	42
2.1. Overview	42
2.2. Epistemological Considerations	42
2.3. Design	43
2.4. Participants	44
2.4.1. Selection of Participants.....	44
2.4.2. Criteria for the Selection of Participants for the Current Anonymised Study	46
2.5. Measures	46
2.5.1. Unusual Experiences Questionnaire (UEQ; Ames et al., 2014; Laurens et al., 2007; Laurens et al., 2012)	46
2.5.2. Strengths & Difficulties Questionnaire (SDQ; Goodman, 2001).....	47
2.5.3. Recent Episodic Life Events (Wilkinson, Dubicka, Kelvin, Roberts, & Goodyer, 2009)	48
2.5.4. Brief Core Schema Scale (BCSS; Fowler et al., 2006)	49

2.5.5. Adolescent Dissociative Experiences Scale (A-DES; Armstrong, Putnam, Carlson, Libero & Smith, 1997).....	50
2.6. Ethical Considerations	51
2.6.1. Ethical approval.....	51
2.6.2. Combining the Data for the Current Study	52
2.6.3. Procedure, Consent, and Assent	52
2.7. Statistical Analyses	53
2.7.1. Primary Hypotheses.....	53
2.7.2. Secondary Hypotheses	55
2.7.3. Sample Size Considerations	56
2.7.4. Missing Data	56
3. RESULTS.....	58
3.1. Overview	58
3.2. Participant Demographics	58
3.4. Relationship with Demographic Characteristics	61
3.5. Primary Hypotheses	65
3.5.1. Research Hypothesis 1: Childhood Adversity will be Associated with Unusual Experiences of Paranoia, Voice-Hearing, Visual Experiences and Negative Affect.....	65
3.5.2. Research Hypothesis 2: Negative Affect will be Associated with UEs of Paranoia, Voice-Hearing and Visual Experiences.	69
3.5.3. Research Hypothesis 3: Negative Affect will Mediate the Relationship between Childhood Adversity and Presence of Distressing Paranoia but not Hearing Voices or Visual Experiences.	70
3.6. Secondary Hypotheses	74
3.6. Research Hypothesis 4: Schemas will Mediate the Relationship between Childhood Adversity and Paranoia but not Hearing Voices or Visual Experiences.	74
3.7. Research Hypothesis 5: Dissociation will Mediate the Relationship between Childhood Adversity and Hearing Voices and Visual Experiences but not Paranoia	78
4. DISCUSSION	79
4.1. Overview	79
4.2. Discussion of Findings	80
4.2.1. Participant Demographics and Variables of Interest.....	80
4.2.2. Research Hypothesis One: Childhood Adversity will be Associated with Unusual Experiences of Paranoia, Voice-Hearing, and Visual Experiences and Affect.	83
4.2.3. Research Hypothesis Two: Negative Affect will be Associated with Unusual Experiences of Paranoia, Voice-Hearing, and Visual Experiences..	84
4.2.4. Research Hypothesis Three: Negative Affect will Mediate the Relationship between Childhood Adversity, and Paranoia but not Voice-Hearing and Visual Experiences.	86
4.2.5. Hypothesis Four: Schemas will Mediate the Relationship between Childhood Adversity and Paranoia but not Hearing Voices or Visual Experiences.	87

4.2.6. Hypothesis Five: Dissociation will Mediate the Relationship between Childhood Adversity and Hearing Voices and Visual Experiences but not Paranoia.....	89
4.3. Critical Review of the Study's Methodology	91
4.3.1. Strengths.....	91
4.3.2. Limitations	92
4.4. Implications	95
4.4.1. Directions for Future Research	95
4.4.2. Clinical Implications.....	97
4.5. Researcher Reflections	102
4.6. Conclusion	104
5. REFERENCES	106
Appendix A: Literature Search.....	132
Appendix B: NHS Ethics for the Three Original Studies.	134
Appendix C: Ethical and Governance Procedures	151
Appendix D: Approved UEL Secondary Analysis of Existing Data Ethics Application and Research Integrity Certificate.	152
Appendix E: Assent and Consent Forms, and Parent and Young Person Information Sheets for the Three Original Studies.	159
Appendix F: Histograms	190

LIST OF TABLES AND FIGURES

Table 1: Summary of Participant Demographics	58
Table 2: Descriptive Statistics of Variables of Interest.....	60
Table 3: Spearman's Rank Order Correlation of Age	61
Table 4: Mann-Whitney U Tests of Gender and Variables of Interest.....	62
Table 5: Mann-Whitney U Tests of Ethnicity and Variables of Interest	63
Table 6: Kruskal-Wallis Tests of Clinical Service and Variables of Interest.....	64
Table 7: Mann-Whitney U Test of Clinical Service and Schemas.....	64
Table 8: Spearman's Rank Order Correlation of Affect and Severity of UEs	69
Table 9: Mann-Whitney-U Tests of Presence of Distressing Unusual Experiences and Affect.....	70
Table 10: The Role of Affect in Mediating the Relationship between Childhood Adversity and Distressing Paranoia Experiences with Demographic Factors.	72
Table 11: Mann-Whitney U Tests of Paranoia with Schemas	75
Table 12: The Role of Negative-Self in Mediating the Relationship between Childhood Adversity and Distressing Paranoia Experiences with Demographics	76
Table 13: Mann-Whitney U Tests of Voice-Hearing with Schemas	77
Table 14: Mann-Whitney U Tests of Visual Experiences with Schemas.....	78
Figure 1: Median scores for severity of paranoia and childhood adversity	66
Figure 2: Median scores for severity of voice-hearing and childhood adversity ..	67
Figure 3: Median scores for severity of visual experiences and childhood adversity	68
Figure 4: Median scores for affect and childhood adversity	68

Statement of Contribution

The researcher has contributed to the recruitment of participants in the Coping with Unusual Experiences study (REC: 11/LO/0023) and facilitated a focus group for the Brief Core Schema Scale measure with adolescents (11-18 years) and parents/carers on an inpatient ward, in the capacity of a Research Worker prior to commencing training. The researcher has also contributed to the recruitment of participants in the Coping with Unusual Experiences Plus study (REC:14/LO/1970) in the capacity of an Honorary Researcher Worker during current training.

1. INTRODUCTION

1.1. Overview

The aim of this chapter is to give an overview of the research and psychological models of unusual experiences (UEs), their applicability to unusual experiences in childhood, and to provide a rationale for the current study. The chapter will be composed of three main sections. Firstly, the author will outline the historical and conceptual context of the study, focusing on the key areas of relevance for the current study. The chapter will discuss the evidence for a continuum view of UEs and psychosis, psychological conceptualisations of psychosis and specific experiences of paranoia and voice-hearing, and the impact of childhood adversity (CA). Secondly, the chapter will present a literature review which aims to synthesise the current understandings of CA and UEs in a child and adolescent population. Thirdly, the rationale and justification for the study will be presented in the context of current gaps in the literature, and the chapter will conclude by outlining the research hypotheses for the current study.

1.2. Terminology

The terms '*unusual experiences (UEs)*', '*psychotic-like experiences (PLEs)*' and '*subclinical psychotic experiences*' are often used interchangeably within the literature to refer to psychotic experiences, occurring in the absence of a psychiatric diagnosis (Lee et al., 2016). Some commonly reported experiences include hearing voices or seeing things that other people cannot hear or see (sometimes termed as auditory and visual hallucinations), or believing someone is following you or watching you, or having other ideas/beliefs that may appear odd to others (sometimes termed as paranoia/persecutory or other delusions). Voice-hearing and visual experiences are understood to be perceptual experiences which occur in the absence of an external stimuli (Varese & Bentall, 2011). Paranoia is understood as a general sense of interpersonal threat to the self, with persecutory ideation considered to be present when a person thinks and feels as if others intend to deliberately harm them (Freeman & Garety, 2014). The term psychosis has been used to describe a range of UEs and presentations

such as incoherent speech, social withdrawal, and difficulties with functioning. It has also been used to characterise a group of psychiatric diagnoses including schizophrenia and delusional disorder (National Collaborating Centre for Mental Health, 2014).

In this thesis, the terms '*UEs*', '*paranoia*', '*voice-hearing*' and '*visual experiences*' have been adopted. Historically, the terms '*psychotic*,' '*delusions*' and '*hallucinations*' have been associated with symptoms of a mental illness and bio-medical frameworks. The researcher acknowledges that there are ongoing debates around the term 'unusual' as this raises the question of 'what' and 'who' determines the experience to be unusual and that these judgements are often influenced by our cultural lens (Harper, unpublished). However, the researcher intends the terms adopted in this thesis to reflect a more psychologically informed understanding of experiences as often being understandable responses to negative life events (The British Psychological Society, 2016). Furthermore, terms such as 'general population' and 'clinical population' are often used in research to distinguish between population groups. The researcher appreciates that these terms may be associated with a mental illness framework as they suggest a clear boundary between people with and without a mental health needs. The researcher acknowledges that people in the 'general population' may too have experiences some of which may be distressing and others that are not.

When citing literature, I will use the terminology adopted by the authors of the research, thereby reflecting their position and assumptions. However, when referring to the current study the terminology '*UEs*', '*paranoia*', '*voice-hearing*' and '*visual experiences*' will be employed.

1.3. Historical Context

In 20th century European medicine, psychosis was understood to be categorical in nature such that there was either an absence or presence of psychotic symptoms. This understanding was influenced by the Kraepelinian paradigm, which incorporated the view of a clear "boundary between the normal and the sick" and the notion of "discrete mental illnesses" (Bentall, 2006, p.222).

However, over time there have been significant developments in our understanding, and there has now been a conceptual shift towards a dimensional or continuum view of psychosis and mental health (Craddock & Owen, 2005).

It is now well evidenced that UEs that were traditionally thought to be exclusively associated with a diagnosis of psychosis, such as hearing voices and having thoughts that may appear odd to others, are commonly reported in the general population (Baumeister, Sedgwick, Howes, & Peters, 2017; Bevan, Read & Cartwright, 2011; Johns et al., 2004; Johns & van Os, 2001; Myin-Germeys, Krabbendam, & van Os, 2003; Verdoux & van Os, 2002). These findings dispute the view that the 'sick' differ qualitatively from the 'normal', and provides a more normalising approach to understanding experiences. The relationship between UEs in the general population and psychosis has been understood in different ways. Quasi-dimensional models conceptualise UEs on a continuum of distress and severity, with clinical psychosis (characterised by distress, impaired functioning, and a need for care) at the extreme end (Baumeister et al., 2017). This view proposes that a small proportion of the general population are predisposed to experiencing UEs, and they comprise a sub-population who may be vulnerable to psychosis if they experience sufficient biological, psychological or social stressors (Zubin & Spring, 1977). Such a conceptualisation may view individuals with UEs as having subclinical psychotic symptoms. The second is the fully-dimensional model, which proposes that UEs are present in the general population as part of individual differences and personality traits (Yung et al., 2009). The presence of UEs in themselves bears no prediction for the outcome of future need for care (Baumeister et al., 2017), however, if associated with distress or impairment to functioning there may be a need for care.

1.4. The Continuum of Unusual Experiences

1.4.1. Unusual Experiences in the General Adult Population

Linscott and van Os (2013) conducted a systematic review of the prevalence and incidence of subclinical psychotic experiences in the general population, which included adults, adolescents, and children. Their review adopted a conservative approach to assessing the presence of psychotic experiences, such that they

only included self-reported experiences if they referred to a specific experience that was unlikely to be culturally accepted. The mean prevalence (the total number of individuals at a particular time-point) was 7.2% and the mean incidence (the total number of new individuals reporting experiences during a particular time period) was 2.5%, both of which are significantly higher than the 0.5% prevalence of psychosis (16-74 years, National Collaborating Centre for Mental Health, 2014). Of those who reported psychotic experiences, 80% were transitory in nature, 20% were persistent experiences, and 7.4% had a later need for care and diagnoses of psychosis. The high prevalence and incidence rates in the general population support the view that UEs lie on a continuum, however, the findings that some individuals with psychotic experiences then go on to have a need for care suggests a combination of quasi and fully dimensional models (Baumeister et al., 2017). Linscott and van Os (2013) propose the proneness-persistence-impairment model, such that persistence of psychotic experiences and need for care is predicted by the interaction between genetic and environmental factors. In support of the continuum approach, research studies have reported that UEs share similar aetiological factors to psychosis. The evidence extends from social factors (e.g. migration, low social-economical background, urbanicity, ethnic minority), CA (e.g. physical abuse, sexual abuse, victimisation), substance misuse (e.g. cannabis) and perinatal complications (Johns et al., 2004; Linscott & van Os, 2013; Morgan et al., 2009; Myin-Germeys et al., 2003).

1.4.2. Prevalence of Unusual Experiences in the General Child and Adolescent Population

A similar pattern is found in child and adolescent general population studies, but with higher rates in younger children, that decrease with age. A systematic review that assessed the median prevalence of psychotic symptoms in a community sample identified that 17% of children aged 9-12 years and 7.5% of adolescence aged 13-18 years had reported experiencing a psychotic symptom (Kelleher, Connor, Clarke, Devlin, Harley, & Cannon, 2012a). Within this review, psychotic symptoms were assessed using interviews which measured perceptual experiences (e.g. voices, sounds and visual) and unusual thoughts (e.g.

suspiciousness, thought withdrawal, grandiose beliefs) or self-report questionnaires that included a validated question (e.g. *"Have you ever heard voices or sounds that no one else can hear?"*; Kelleher, Harley, Murtagh, & Cannon, 2011). It has been proposed that the high prevalence of UEs in childhood is suggestive that these experiences are not pathological in nature, but rather they are part of normative development (e.g. imaginary friends; Laurens, Hobbs, Sunderland, Green, & Mould, 2012). It is theorised that young people may be more susceptible to paranoid thoughts or perceptual experiences as this is a period in life in which people are more self-conscious owing to peer group development, changes in self-esteem and puberty (Carr, 1999; Steinberg & Morris, 2001).

Individual studies have reported wide-ranging prevalence rates, ranging from 1.9% to 63.4% (Dolphin, Dooley, & Fitzgerald, 2015; Lauren, Hodgins, Maughan, Murray, Rutter, & Taylor, 2007; Yung et al., 2009). Prevalence rates of UEs vary across studies based on the definitions and assessments used (Lee et al., 2016). A greater number of UEs are reported in self-report questionnaires compared to clinical interviews and caregiver reports (Laurens et al., 2007). One explanation for this could be that young people feel more comfortable to report their experiences in a questionnaire compared to talking about their experiences to a caregiver or clinician. A validation study on a screening questionnaire for PLEs found that self-report questions on auditory hallucinations, visual hallucinations and paranoid thoughts were valid and had the strongest sensitivity, specificity and predictive power when compared to clinical interviews (Kelleher et al., 2011). Although prevalence rates are wide-ranging dependent on the methodologies employed, all the studies are suggestive that UEs are common in a child and adolescent population further supporting the notion that UEs lie on a continuum. In relation to gender differences and PLEs the findings are inconclusive (Fonseca-Pedrero, Santaren-Rosell, Lemos-Giraldez, Paino, Sierra-Baigrie, & Muniz, 2011), some studies have demonstrated that females report higher levels of PLEs (Yung et al., 2009), while other studies contradict these findings (Laurens et al., 2007). More research is required to understand the role of sociodemographic factors such as gender, socioeconomic status, ethnicity and

immigrant generations in the prevalence of UEs in a child and adolescent population.

1.4.3. Unusual Experiences, Trajectories, and Associations with Mental Health in Childhood and Adolescence

The prevalence rates reported in all the above studies, far exceed the prevalence of psychosis in both the adolescent and adult populations, thus suggesting that the mere presence of UEs alone in childhood and adolescence is not suggestive of future psychosis. In relation to this finding, three main understandings will be presented within the current research on childhood UEs. Firstly, most UEs are transitory and are not associated with distress. Secondly, a small but significant proportion of people may experience persistent, distressing and impacting UEs and go on to develop a need for care. Thirdly, the presence of persistent UEs may be associated with mental health difficulties more broadly in a child and adolescent population.

Some studies have investigated the development trajectory of UEs. Mackie, Castellanos-Ryan and Conrod (2010), identified three PLE trajectories (persistent, increasing and low) in a longitudinal study of substance use-risk in an adolescent general population. Participants self-reporting elevated scores on one of four personality risk factors associated with substance misuse (hopelessness, anxiety-sensitivity, impulsivity, and sensation-seeking) rated PLEs at four-time points, across a two-year period. Most (84%) were in the low trajectory. Persistence was associated with peer victimisation experiences, and elevated depression and anxiety ratings. 'Increasing' PLEs were linked with cocaine and cannabis use.

Wigman and colleagues (2011a) extended on these findings in a Dutch adolescent general population sample, without elevated personality risk factors, with a follow-up over six years. A cohort of 10-11 year olds self-reported psychotic experiences at three different time-points, identifying four distinct trajectories for mild positive psychotic experiences: low, decreasing, increasing and persistent. Most adolescents experienced low or decreasing psychotic

experiences, which is consistent with the view that subclinical psychotic experiences peak in childhood and decrease over time. However, a small proportion of adolescents did experience persistent or increasing psychotic experiences. Their findings suggest that the increasing and persistent trajectories represent the most important developmental pathways for future clinical need. The persistent trajectory was strongly associated with substance use, CA, developmental difficulties and belonging to an ethnic minority group; all of which are well-researched risk factors for clinical psychosis (Johns et al., 2004; Morgan et al., 2009; Myin-Germeys et al., 2003). Additionally, those in the persistent trajectory reported the highest levels of affective difficulties, social problems, and attention problems; they were also more likely to be accessing mental health care. They then expanded on their study (Wigman et al., 2011b) by completing both an exploratory and confirmatory factor analysis of positive psychotic experiences. Their analysis revealed five dimensions, which they categorised as hallucinations, delusions (including unusual thought phenomena, e.g. 'thoughts in your head are being taken away'), paranoia (e.g. 'some people are not what they seem'), grandiosity, and paranormal beliefs. Hallucinations, delusions, and paranoia had the strongest associations with frequency and associated distress. They also found that these same dimensions were most strongly associated with internalising and externalising difficulties as measured by the Strengths and Difficulties Questionnaire (Goodman, Meltzer & Baily, 1998). This study supports the view that UEs should not be examined in unison, as individual experiences may have different associations.

Dominguez and colleagues (2011) investigated what they referred to as subclinical psychotic experiences and considered whether experiences that persisted over time were more likely to result in a need for care. They followed a population sample of adolescents and young people aged 14-24 years for eight years. Similarly, they found that most subclinical psychotic experiences were transitory in nature, however, about 30% of the sample experienced persistent subclinical psychotic experiences. The more persistent the experience the greater the likelihood that an individual would be diagnosed with psychosis, around two-fifths of new onset psychosis could be accounted for by earlier reported subclinical psychotic experiences. This is consistent with Poulton and colleagues

(2000), who found that children who reported PLEs at age 12 had 5-to-16-fold increased likelihood of being diagnosed with schizophrenia. Combined, these studies highlight that UEs may share similar aetiological factors to psychosis, and that persistent UEs may be considered an indicator for future need for care. It is equally important to note that not all young people who report UEs then go on to have a future need for care, nor are all psychotic episodes preceded by UEs as three-fifths of the Dominguez et al. (2011) sample could not be accounted for by earlier experiences. This is consistent with the idea that UEs may also form part of normative development and suggests that the presence of UEs alone is not a sufficient indicator for future need for care (Laurens et al., 2007). There is a risk by focusing purely on the mere presence of UEs in childhood that young people may be stigmatised or unnecessarily referred to services for interventions. Therefore, research should consider if the presence of other psychosocial factors in combination with persistent and distressing UEs contributes to future need for care.

Alongside this, research has also suggested that UEs are not solely related to psychosis but may also be considered as an indicator for a range of mental health needs. Kelleher and colleagues (2012b) found that psychotic experiences were prevalent in a wide-range of mental health difficulties in a child and adolescent population. Most young people who reported psychotic experiences also had a diagnosable mental health condition, and this association strengthened with age. They also noted a dose-response relationship, in that the prevalence of psychotic experiences increased with the number of diagnosable mental health conditions; 40% of adolescents with comorbid diagnoses reported psychotic experiences compared to 8% with one diagnosis. Other studies have also supported the understanding of persistent UEs being associated with both emotional and behavioural difficulties in childhood and adolescence (Downs, Cullen, Barragan, & Laurens, 2013; Lancefield, Raudino, Downs, & Laurens, 2016). Additionally, Kelleher et al. (2015) found that 75% of adolescents reported their psychotic experience to be distressing. Several explanations have been proposed to how UEs may act as an indicator for a range of mental health needs. One explanation is that similar social risk factors (e.g. ethnicity, isolation, migration, adversity) influence both psychosis and other mental health conditions,

such that they may co-occur (Kelleher et al., 2012b). Another explanation is that emotional distress caused by the UEs contributes to other mental health needs, such that the experience of a distressing UE may cause young people to feel alienated and low in mood or become worried by the content of the experience (Kelleher et al., 2012b). It is also possible that UEs happen as result of other mental health needs rather than being a causal factor, such that individuals who are feeling anxious and hold beliefs of threat and harm may then experience paranoia (Freeman, Garety, Kuipers, Fowler, & Bebbington, 2002; Kelleher et al., 2012b).

1.4.4. Clinical Implications for Unusual Experiences in Childhood and Adolescence

In line with research that has reported that UEs are associated with distress, future need for care and mental health needs more broadly, the National Institute for Health and Care Excellence (NICE, 2013) recommends psychological interventions. Specifically, Cognitive Behavioural Therapy (CBT) has been advised for children and young people experiencing psychosis and those experiencing psychotic experiences that are causing distress and impacting daily life. Intervention is recommended both for reducing distress and preventing future mental health difficulties. If clinicians are being advised to use cognitive approaches to support young people, it is imperative that research further develops an understanding of such theories and interventions in this population. There is a danger that cognitive theories and interventions developed for adults will be extrapolated to a child and adolescent population without examination of its applicability. It has been debated that social context theories have been overlooked in favour of a more individualistic cognitive approach (Boyle, 2011). The importance of social context and attending to social inequalities when working UEs and young people will be further considered in the discussion chapter.

Developing a better psychological understanding of UEs has become an important area of research, as effective interventions are needed, and recommendations are currently derived from our understanding of psychosis in

adults. The following section will offer a synopsis of some of the theoretical understandings of psychosis, with a focus on cognitive models as these have gained considerable momentum in both theory and intervention in the last two decades and are currently recommended by NICE (2013).

1.5. Conceptualisations of Psychosis

There is some agreement that psychosis may be understood within a stress-vulnerability framework (Zubin & Spring, 1977); it is assumed that *stress* in the form of endogenous challenges (e.g. biochemical or neurophysiological) or exogenous challenges (e.g. life events) can elicit a mental health crisis in anyone. They argue that a mental health crisis is dependent on the interaction between the intensity of the *stress* and the threshold for tolerating the stress, that is one's *vulnerability*. The stress-vulnerability framework clearly states that *vulnerability* can be influenced by inborn factors (e.g. genetics) or acquired by the influence of "trauma, specific diseases, perinatal complications, family experiences, adolescent peer interactions and other life events" (Zubin & Spring, 1977, p.109).

Despite this acknowledgment of psychosocial factors contributing to a vulnerability, some models have continued to emphasise the biological aspects of vulnerability, as a genetic predisposition (e.g. the diathesis-stress model; Walker & DiForia, 1997). Consequently, psychosocial factors are positioned as triggers or exacerbations to an underlying genetic vulnerability rather than acknowledging that psychosocial factors might have a causal role in the vulnerability to psychosis (Read, Perry, Moskowitz, & Connolly, 2001). It is important that consideration is given to the use of the word 'vulnerability', as there is a risk that the term may encourage an individual focus or be seen as an individual attribute, rather than understanding 'vulnerability' within an interpersonal and social context (Boyle, 2003).

More recently cognitive models (Garety, Kuipers, Fowler, Freeman, & Bebbington, 2001, 2007; Morrison, 2001) and the traumagenic neurodevelopment model of psychosis (Read et al., 2001; Read, Bentall, & Fosse, 2009; Read, Fosse, Moskowitz & Perry, 2014) have built on the stress-vulnerability framework

(Zubin & Spring, 1977) and offer an integrative understanding of the biological, psychological and social explanations for psychosis.

1.5.1. Cognitive Models

Over the last 20 years, there have been considerable developments in our understanding of unusual beliefs and perceptions and there are now multifactorial models. Building on the stress-vulnerability framework (Zubin & Spring, 1977), cognitive models propose that the interaction between cognitive processes, emotional changes, and social factors contribute to the onset and maintenance of psychotic experiences. Thus, an individual with a predisposed biopsychosocial vulnerability (e.g. genetic, trauma experiences, family experiences) might experience a triggering event such as a negative life event, environmental stressor or social isolation, which may lead to emotional changes, in combination with unusual perceptual experiences. UEs are then understood in relation to past experiences, together with emotional changes that arise from the triggering event. Combined these processes can influence negative appraisals that may then lead to further emotional changes which in turn may influence the presence and interpretation of further anomalous experiences, such as hearing voices or racing thoughts in a maintenance cycle. UEs are thought to be appraised as being unfamiliar, external and threatening; leading to the development of 'culturally unacceptable' or delusional interpretations (Morrison, 2001), which may occur alongside secondary worries about what is happening such as being 'mad' (e.g. Garety et al., 2001; 2007).

Cognitive models have specifically highlighted how the experience of adverse life events can contribute to a cognitive vulnerability, characterised by negative schemas about self, others and the world (e.g. "I am vulnerable," "others can't be trusted," and "the world is dangerous"; Fowler et al., 2006). Additionally, Birchwood et al. (2004) highlighted how experiences of social adversity can influence the development of negative schemas. These types of schematic beliefs may influence the content of UEs and are likely to contribute to anomalous experiences being interpreted as negative and threatening (Morrison, 2001),

which may then contribute to a cycle of feeling out of control and experiencing persistent UEs.

Recent developments in cognitive models have proposed that different psychological processes are involved in the development and maintenance of paranoia and voice-hearing. Thereby, there has been a movement towards working with individual experiences (Garety & Freeman, 2013), with a focus on understanding what contributes to that experience and reducing distress and increasing quality of life.

1.5.2. Paranoia

Cognitive models have theorised two central features in the formation of paranoia: an individual's view of the self, others and the world, and the presence of anxiety (Freeman et al., 2002). When a person has an anomalous experience (Garety et al., 2001, 2007) they will begin to search for meanings to make sense of their experience. In this search for meaning, individuals will draw upon pre-existing beliefs about the self, others and the world, influenced by early experiences, such as CA. If an individual holds a belief of 'I am vulnerable,' they are more likely to interpret their anomalous experience as external and threatening. The presence of threat beliefs and the anticipation of danger in paranoia suggests parallels with psychological models of anxiety (Freeman et al., 2002). Consistent with this theory, research has found that rates of worry in individuals with paranoid beliefs are comparable to individuals with a diagnosis of generalised anxiety disorder (Freeman & Garety, 1999). As such, established negative beliefs about the self, may combine with threatening beliefs about others, and give rise to anxiety; the combination of these factors then contributes to the occurrence and persistence of paranoia.

Studies that have considered the association between paranoia, depression, and self-esteem have given rise to the suggestion that two types of paranoia may exist, the 'poor me' and the 'bad me' (Trower & Chadwick, 1995). 'Poor me' paranoia is characterised by appraisals of attributing blame to others, this type of paranoia may protect self-esteem and lower levels of depression. 'Bad me'

paranoia is characterised by individuals blaming themselves, and viewing their experiences as justified, which maintains low self-esteem, and higher levels of depression. The belief that the threat is deserved in some way may reflect negative beliefs about oneself. Recent research suggests that individuals may alternate between the two types of paranoia depending on the social and interpersonal context (Melo, Taylor, & Bentall, 2006).

Consistent with the idea of different cognitive models for different kinds of experiences, Garety and colleagues (2013) found different pathways for persecutory and grandiose delusions in a sample of individuals with a non-affective psychosis diagnosis. Negative self-evaluations, depression, and anxiety significantly predicted the presence of persecutory delusions, whereas positive-self, positive-other and lower anxiety and depression significantly predicted grandiose delusions. Smith et al. (2006) found low self-esteem, depression, negative beliefs about oneself and others were associated with paranoia, distress and preoccupation with the same group of individuals. Using a student population, Gracie et al. (2007) reported that negative beliefs about self and others partially explained associations between trauma and paranoia. In a general population sample, Freeman and Fowler (2009), found that a history of trauma was associated with both auditory hallucinations and paranoia. Paranoia was associated with higher levels of anxiety, depression, and negative-self. Auditory hallucinations were significantly associated with higher levels of anxiety only. However, when considering mediating relationships, anxiety explained the relationship between trauma and paranoia but not auditory hallucinations. Their study suggests that trauma impacts on auditory hallucinations and paranoia in different ways, and that trauma may influence paranoia by increasing anxiety. Fisher, Appiah-Kusi, and Grant (2012) extended these findings by exploring both anxiety and negative self-evaluations using a general population sample. Their study provided evidence for both the role of anxiety and negative self-evaluations as psychological processes that partially explained the relationship between CA and paranoia.

1.5.3. Voice-Hearing

From a cognitive perspective, voice hearing is understood to arise from reality discrimination difficulties. This is a metacognitive process in which individuals misattribute internal mental events (e.g. private, inner speech) as external (Varese & Bentall, 2011). Additionally, emotions have been identified to have an important role in the response to hearing voices. Negative emotional responses towards the voice are associated with negative voice appraisals such as the voice being malevolent in nature and appraisals of a loss of control (Waters et al., 2012). Furthermore, voice-hearing has been associated with both trauma, most strongly with child sexual abuse, and dissociative experiences in both general population and help-seeking samples (Longden, Madill, & Waterman, 2012). Research has argued that dissociative processes can account for the link between CA and voice hearing (Longden et al., 2012). Dissociation has been described as a disconnection from the environment and oneself, it has been related to divided attention, flashbacks and confusion (Pilton, Varese, Berry, & Bucci, 2015). Dissociative detachment can destabilise an individual's grounding with their environment (Kilcommons & Morrison, 2005), thereby hindering reality-testing, which may increase the misattribution of internal mental states as externally generated events (Varese, Barkus & Bentall, 2012). Dissociation can also destabilise internal grounding, such that it is difficult to connect with one's thoughts, body, and actions, thereby causing a sense of confusion and disorientation (Kilcommons & Morrison, 2005). It may be that individuals respond to trauma by adopting dissociation as a coping strategy. Following trauma, some individuals re-live their experience in the form of a flashback. Individuals may then experience their world as unreal (derealisation) or feel disconnected from parts of their body or emotions (depersonalization) as way of coping with the painful feelings associated with re-experiencing their trauma (Kilcommons, Morrison, Knight, & Lobban, 2008).

A recent meta-analysis (Pilton et al., 2015) of nineteen studies that included both clinical and non-clinical populations found that most studies had established a positive relationship between voice hearing and dissociation, with an overall effect size of $r=.52$. Three of the studies included in the analysis also supported the understanding that dissociation mediated the relationship between trauma

and voice-hearing (Perona-Garcelán et al., 2012; Perona-Garcelán et al., 2014; Varese et al., 2012).

Varese et al., (2012) recruited a sample of individuals with a diagnosis of schizophrenia and individuals without a history of hallucinatory experiences. Dissociation mediated the relationship between childhood trauma and hallucinatory experiences, this mediating relationship was strongest with experiences of child sexual abuse. Correspondingly, they found that individuals with hallucinatory experiences reported higher levels of childhood sexual abuse and dissociative tendencies. However, their study did not support the idea that dissociation is involved in reality discrimination, signifying that the mechanisms in which dissociation mediates hallucinatory experiences require further investigation. Perona-Garcelán and colleagues (2012), employed a sample of individuals with a diagnosis of psychosis. They found that childhood trauma was associated with dissociation, hallucinatory and delusional experiences. Additionally, dissociation explained the relationship between childhood trauma and hallucinatory experiences but not delusional experiences. This is consistent with the idea that pre-existing beliefs about the self, others, and the world are an important factor in the formation and maintenance of delusional experiences (Freeman et al., 2002). Similarly, the Perona-Garcelán et al. (2014) study utilised a general population sample, where individuals were identified as having low and high hallucination proneness. Those with high hallucination proneness were more likely to report traumatic events. Additionally, their study focused on depersonalization (disconnection from one's emotions or behaviours) and absorption (preoccupation, difficulties in discriminating fantasy from reality), which are specific components of dissociation; they found that both accounted for the relationship between childhood trauma and high hallucination proneness. It may be that the reliving of trauma experiences or preoccupation of related negative thoughts, may encourage absorption and/or depersonalization as a coping strategy, this may then contribute to an increased likelihood of appraising voices as externally generated.

To summarise, cognitive models and research have highlighted how CA can have a causal role with both paranoia and voice-hearing. However, it appears that CA

has different causal pathways with paranoia and hearing voices; such that negative affect and negative beliefs about the self, others and the world are important psychological processes in mediating the relationship between CA and paranoia (Fisher et al., 2012; Freeman & Fowler, 2009; Gracie et al., 2007). For voice-hearing, on the other hand, dissociation has been identified as an important psychological process in mediating the association between CA and hallucinatory experiences (Pilton et al., 2015).

1.5.4. Traumagenic Neurodevelopment Model

The traumagenic neurodevelopment model (TNM) provides a partial explanation for the relationship between trauma and psychosis, by bringing together biological and psychosocial processes (Read et al., 2014). The TNM is based on the principle that the heightened sensitivity to stress often found in adults with psychosis is not inherited but rather a result of neurodevelopmental changes following early exposure to trauma (Read et al., 2001; Read et al., 2014). Within this model, there is a greater emphasis on epigenetic mechanisms, in which socio-environmental experiences, such as poverty and child abuse alter gene transcription during brain maturation (Read et al., 2009). Research evidence has indicated that brain differences between adults with a diagnosis of schizophrenia and healthy controls, were the same as brain differences between children who had experienced trauma and those who had not (Read et al., 2001). Studies have demonstrated similarities between the effects of trauma on the developing brain and biological changes found in adults with schizophrenia. Some of these brain differences included neurological differences such as dopamine and over activity of the hypothalamic-adrenal-pituitary (HPA) axis and structural differences such as hippocampal damage (Read et al., 2001). The traumagenic neurodevelopment model has contributed to a movement away from focusing purely on brain differences, and a movement towards considering “what happened to that group (of people) to cause this pattern of functioning?” (Longden & Read, 2016, p.11).

1.6. Childhood Adversity

As discussed above, CA has been identified as having an important causal role in persistence of UEs in childhood and adolescence (Mackie et al., 2010; Wigman et al., 2011a), and psychosis in adulthood (Read et al., 2001; Read et al., 2014)

for some individuals. The following sections will now consider definitions, prevalence and the impact of CA on child development, mental health more broadly, and psychosis.

1.6.1. Definitions and Prevalence

The World Health Organisation (WHO) has defined CA as experiences of “interpersonal loss (e.g. parental death, divorce), parental maladjustment (mental illness, substance misuse, violence), maltreatment (e.g. physical, sexual, neglect) and other adversities (life-threatening physical illness, economic adversity; Kessler et al., 2010, p.379)”, before the age of 18. There have been two large population studies, one world-wide (Kessler et al., 2010), and another in a primary care sample in America (Felitti et al., 1998), both studies found that CA was common. A World Mental Health (WMH) survey completed in 21 countries conducted by WHO revealed between 38.4%-39.1% of the population who had completed the survey had experienced some form of CA. This prevalence was similar across low and high-income countries. In their study, the most common CA was parental death, followed by physical abuse, family violence and parental mental illness (Kessler et al., 2010). In the American population based study (Felitti et al., 1998), adversity was defined as childhood abuse (e.g. psychological, physical, sexual), childhood neglect and household dysfunction (e.g. substance misuse, mental illness, criminal behaviour, domestic violence). In this study, over 50% of respondents had experienced at least one CA; of which 23.5% reported living with someone who abused substances, 19.3% reported an unwanted sexual experience, 10% reported psychological abuse, and 9.6% reported physical abuse. Both large-scale surveys revealed that experiencing more than one CA was common (Felitti et al., 1998; Kessler et al., 2010).

1.6.2. Impact of Childhood Adversity on Child Development

CA has been found to impact child development in two main ways: neurodevelopment and psychosocial development. As highlighted in the TNM (Read et al., 2001; Read et al., 2014) adversity in childhood can influence neurodevelopment via epigenetic mechanisms. The HPA axis reacts to stress and trauma by releasing cortisol; it is theorised that repeated stress and release

of cortisol damages neurons and connections in critical brain regions. It is these changes in the brain that contribute to psychosocial difficulties and future coping to stress (Putnam, 2006). Furthermore, CA impacts psychosocial development in the form of difficulties with emotional regulation, the development of healthy relationships, impulse control and a positive sense of self via disruptive attachments.

Four main attachment styles have been identified: *secure*, *insecure-avoidant*, *insecure-ambivalent*, and *disorganised* (Main & Soloman, 1990). The main determinants of a *secure* attachment are care, responsiveness, and consistency; a secure attachment fosters an environment in which children can explore, develop and learn (Silver, 2013). Within the *insecure avoidant* attachment, caregivers often offer little response to their distressed child and the secure base can be experienced as rejecting, often children are misinterpreted as being independent and fearless (Silver, 2013). Within the *insecure ambivalent* attachment, caregivers tend to offer inconsistent responses, accordingly children do not feel reassured enough to explore. Consequently, children often present as dependent and anxious as they continue to seek assurance from their caregiver (Silver, 2013). The final attachment style known as *disorganised* has been identified as the most harmful, children experience the environment as hostile, chaotic and unpredictable. This might be in the context of abuse or parents being unavailable to meet the child's needs. Disorganised attachment is highly associated with poor self-esteem, lower academic attainment and externalising behavioural problems (Putnam, 2006). It has been proposed that early attachment influences the development of internal working models; this refers to expectations of support from others and the regulation of responses in interpersonal interactions (Schore, 2000). These internal working models are then incorporated into a child's views about the self, others and the world and influences their future relationships (Schore, 2000). These views, also termed as schematic beliefs, have been related to future psychosocial difficulties including low mood (Beck, 2011), worries (Wells, 1997), personality difficulties (Levy, Johnson, Clouthier, Scala, & Temes, 2015) and psychotic experiences (Garety et al., 2001).

Although research has shown that CA impacts both neurodevelopment and psychosocial development, it is important to highlight that research has also shown that therapeutic work with children who have experienced attachment difficulties and/or deprivation has been helpful in supporting children to cope with stress (Schuengel, Oosterman, & Sterkenburg, 2009).

1.6.3. Mental Health Outcomes

Exposure to CA has been shown to have wide-ranging and lasting consequences in both childhood and adulthood. In childhood, adversity has been associated with poor academic outcomes and behavioural difficulties (Putnam, 2006; Read & Bentall, 2012). In adulthood, CA has been related to emotional and behavioural difficulties commonly associated with a diagnosis of depression, anxiety disorders, post-traumatic stress disorder, dissociation disorder, substance misuse, and risky sexual behaviour (Gilbert, Widom, Browne, Fergusson, Webb, & Janson, 2009; Kessler et al., 2010; Read & Bentall, 2012). CA has also been strongly associated with poor physical health including obesity, heart disease, cancer, diabetes and liver disease (Felitti et al., 1998). The Kessler et al., (2010) study found that adversity related to maladaptive family functioning (e.g. parental mental health, child abuse, neglect) was the strongest predictor of being given a mental health diagnosis from the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; American Psychiatric Association, 2000), and that CA had strong associations with all mental health disorders across the lifetime. It is important to acknowledge that the Kessler et al. (2010) study did not analyse associations between CA and psychosis as this was not included in the WMH survey, as will be discussed in the following section CA has been significantly related to psychosis (Read et al., 2005). Furthermore, the full impact of CA on mental health may not have been captured as it is likely that the DSM categories did not conceptualise the full range of experiences or emotional distress within the 21 countries studied (Kessler et al., 2010; Thakker & Ward, 1998).

1.6.4. Childhood Adversity and Psychosis

Three large meta-analyses have been conducted, all of which support the understanding that CA is associated with positive symptoms of psychosis, especially paranoia and voice-hearing.

In 2005, Read, van Os, Morrison and Ross conducted a literature review on all relevant papers up until November 2004. Their review concluded that childhood abuse was a causal factor for positive symptoms of psychosis. From the 51 studies included, the weighted averages indicated that most women (69%) and men (59%) with psychosis had experienced either sexual or physical abuse. Read et al. (2005) highlight how rates of CA are likely to be underestimated as child abuse is generally underreported in inpatient settings and in men. In another meta-analysis conducted by Varese et al. (2012) 41 studies were included, this review comprised a combination of patient-controlled, prospective and cross-sectional studies. Their meta-analysis further supported the conclusions from Read et al. (2005), in that all study designs indicated strong associations between CA and psychosis, with an overall odds ratio (OR) of 2.78. A recent systematic review (Trotta, Murray, & Fisher, 2015) of the impact of CA on the persistence of psychotic experiences across the general population, high risk, and psychosis groups of adults and children found that CA was associated with the persistence of psychotic experiences over time in the general population (OR=1.76). Their review also confirmed an association between CA and the persistence of psychotic symptoms with those with a diagnosis of psychosis (OR=1.55).

Some of the studies included in these reviews have relied on retrospective accounts of CA. Retrospective methodologies have been criticised, as it has been proposed that memory processes (Piolino, Desgranges, Benali, & Eustache, 2002), mood (Wolfkind & Coleman, 1983) and subsequent life experiences may influence the reliability of accounts. However, Fisher et al. (2011) conducted a study that demonstrated that retrospective accounts from people with a diagnosis of psychosis were reliable and stable over time and that current psychotic symptoms did not influence the reporting of CA.

Bentall and colleagues (2012) tested specific associations between types of

trauma and psychotic symptoms. In their study, childhood sexual abuse was associated with auditory hallucinations, institutional care was associated with paranoid beliefs, and physical abuse was associated with both auditory hallucinations and paranoid beliefs. The study also demonstrated a dose-response, such that as the number of trauma exposures increased, so did the likelihood of experiencing a psychotic symptom. These findings were supported by Hardy et al. (2016), who reported an association between childhood sexual abuse and auditory hallucinations, furthermore, this relationship was partially mediated by trauma related avoidance, emotional numbing, and hyperarousal. Additionally, they found an association between childhood emotional abuse and persecutory delusions. Consistent with cognitive models this relationship was mediated by negative-other beliefs.

1.7. The Focus of the Current Study

Research to date has illustrated that UEs are common in the general population and that they share similar aetiological factors to clinical psychosis (Linscott & van Os, 2013). Accordingly, much of our understanding of UEs has derived from psychosis literature. There is now a strong evidence base supporting a trauma adversity-psychosis link in adults (Bentall et al., 2012; Read et al., 2005). Furthermore, there is increasing evidence reporting that persistent UEs in childhood and adolescence are associated with an increased likelihood of psychosis (Dominguez et al., 2011; Poulton et al., 2000), mental health difficulties more broadly (Downs et al., 2013; Kelleher et al., 2012; Lancefield et al., 2016), distress (Kelleher et al., 2015), peer victimisation (Mackie et al., 2010) and CA (Wigman et al., 2011). For that reason, psychological interventions are now recommended for young people with distressing and impairing UEs (NICE, 2013). Consequently, further research is required to enhance our understanding of the relationship between CA and UEs in childhood, so that effective interventions can be developed to reduce distress and promote future mental-wellbeing.

Recently, cognitive models for psychosis have moved towards focusing on individual experiences, as it is understood that different psychological processes may be implicated (Garety & Freeman, 2013). Research suggests that hallucinations, paranoia, and delusions should be key amongst these, as they

were most associated with distress, emotional, and behavioural difficulties in a child and adolescent population (Wigman et al., 2011b). Furthermore, self-report questions for paranoia, voice-hearing and visual experiences hold strong sensitivity and specificity, and are the most commonly reported experiences in a child and adolescent population (Kelleher et al., 2011). Accordingly, this study investigated the relationship between CA and specific experiences of paranoia, voice-hearing, and visual experiences.

1.8. Literature Review of Childhood Adversity and Unusual Experiences in a Child and Adolescent Population

This section of the chapter aims to synthesise existing research on CA and UEs in a child and adolescent population. Based on Booth, Sutton and Papaioannou's (2016) structure for defining a scope for a systematic review, the following review will focus on:

1. Who: children and adolescents (under 18 years)
2. What: UE, specifically paranoia, voice-hearing and visual experiences
3. How: CA relates to UE in a child and adolescent population

A systematic database search was conducted to identify papers relevant to these aims. The search was conducted using PsychINFO, PsychArticles and CINAHL Plus via EBSCO, and Scopus. The search concentrated on academic journals published between 2000-2017, as this was when childhood UEs started to be researched more extensively. The following search terms were used: psychosis OR schizophreni* OR delusion OR auditory hallucin* OR vis* hallucin* OR sub-clinical OR psychotic-like experience* OR voice* OR paran* OR suspic* OR unusual experience*) AND (child* OR teen* OR adolescen* OR young people) AND (child* abuse OR child* advers* OR negative life event* OR trauma). Further papers were identified using Google Scholar and Research Gate, as well as the references lists of the relevant papers identified in the initial search. Appendix A outlines the limiters, inclusion and exclusion criteria that were used, together with the number of studies identified.

A total of 17 relevant studies were identified; relevance was defined as studies

that investigated both CA and UEs in a child and adolescent population. Of these studies, 12 used a general population sample, three studies employed a sample accessing Child and Adolescent Mental Health Services (CAMHS), and two studies used a mixed sample of the general population and those accessing Mental Health Services. All 17 studies adopted a quantitative method, the database search did not identify any qualitative studies that investigated both CA and UEs in a child and adolescent population. The database search highlighted how research that uses qualitative approaches is also necessary as presently no research to date has explored personal accounts of CA and UEs. It has been noted that research on personal accounts for young people with UEs in general is underdeveloped (Welsh & Oates, 2015). This area of research will be elaborated on in the discussion chapter (see 4.4.1).

The current review will concentrate on quantitative studies as this is demonstrative of the literature and will be represented in three parts, the first part will include studies that investigated the relationship between CA and UEs in a child and adolescent population. The second part will comprise studies that have included other psychological processes within their investigation of CA and UEs. The third part will focus on studies that have considered specific experiences.

1.8.1. The Relationship Between Childhood Adversity and Unusual Experiences

The literature search identified ten papers that supported the view that CA, including experiences of bullying, were associated with UEs in a general population of children and adolescents, no studies in this review did not support this relationship.

Lataster and colleagues (2006) investigated the relationship between victimization (assessed by self-report experiences of unwanted sexual experiences and bullying), and subclinical psychotic experiences in a sample of 1290, 14-year olds using a cross-sectional design. Bullying and unwanted sexual experiences were independently associated with subclinical psychotic experiences; this relationship remained significant when age and gender were controlled for (being bullied: OR=2.9, 95% CI 1.8–4.8; sexual trauma: OR=4.8, 95% CI 2.3–10.1). Additionally, there was a significant dose-response between

the severity of subclinical psychotic experiences (number of experiences) and exposure to victimization. The cross-sectional nature of the study did not permit the investigation of temporal associations. De Loore et al. (2008), extended the findings of Lataster and colleagues (2006) by studying the longitudinal effects of the same community sample, two years later. As before, the study considered bullying and unwanted sexual experiences, in addition to any negative life event in the last year. The longitudinal study found that unwanted sexual experiences and negative life events were predictive of subclinical psychotic experiences two years later, however, bullying experiences were not predictive once confounding variables (age, gender, duration of time between assessment and follow-up, and educational level) were controlled for. There was a dose-response relationship, such that the more unwanted sexual experiences and negative life events experienced, the greater the likelihood of reporting subclinical psychotic experiences. Their study investigated temporal associations and reverse causality. They found that victimizing experiences and negative life events accounted for subclinical psychotic experiences two years later, and those who experienced subclinical psychotic experiences at baseline were not more likely to be exposed to bullying or sexual trauma two years later. However, subclinical psychotic experiences did predict future negative life events, one explanation for this may be that the presence of persistent experiences may increase the probability of experiencing stigma. The findings from the De Loore et al. (2008) study support the view that subclinical psychotic experiences remain persistent when combined with environmental risk in the form of unwanted sexual experiences and negative life events.

Campbell and Morrison (2007), reported that the perception of being bullied was associated with the presence of hallucinations, paranoid thoughts, and dissociation in the general population. Additionally, negative beliefs about the world were found to be the strongest predictor of paranoid thoughts. Kelleher and colleagues (2008) employed a general-population sample of 211 adolescents, using a semi-structured interview method to assess affective disorders and schizophrenia in children and adolescents. Significant associations were found between psychotic experiences and exposure to physical abuse (OR=5.96, 95% CI 1.27-27.97), domestic violence (OR=10.06, 95% CI 2.20-46.01), and bullying

(OR=1.23, 95% CI .40-3.83). These associations remained significant irrespective of a psychiatric diagnosis or psychiatric history in the family. Using the same sample of adolescences and method, Harley et al. (2010) found that both cannabis use (OR=5.23, 95% CI 1.14-18.8) and childhood trauma (OR=5.20, 95% CI 1.58–17.13) were independently associated with psychotic experiences. As expected, when cannabis use and childhood trauma were jointly present, the likelihood of the presence of psychotic experiences increased, suggesting an additive interaction.

Schrier et al. (2009) found that the likelihood of reporting psychotic symptoms at age 12 years, increased by nearly two-fold in children who had experienced peer victimization at age 8 and/or 10 years (OR=1.94, 95% CI, 1.54-2.44). Like Lataster and colleagues (2006) they too found a dose-response, in that the association between peer victimization and psychotic symptoms was stronger in those children who had reported peer victimization at both time-points and those who reported both relational and physical bullying (OR= 4.60, 95% CI 3.24-6.50). These findings remained when family adversity, low IQ, and early psychopathology were controlled for. Guloksuz et al. (2015) also demonstrated a dose-response, in that exposure to more than one environmental factor (characterised by urbanicity, cannabis use, and trauma) increased the likelihood of experiencing psychotic experiences. They found that these environmental factors mediated the relationship between psychotic experiences and affective and obsessive compulsive presentations.

A study by Arseneault and colleagues (2011) also considered the relationship between childhood trauma and psychotic symptoms. Within this study seven psychotic symptoms were assessed in interviews, responses were then coded 'not a symptom', 'probably symptoms', and 'definite symptoms'. This study added to existing research by differentiating trauma based on the intention to harm and separated the effects of trauma exposure in early childhood and mid-childhood. Participants were recruited from a nationally representative birth cohort of British twins. Their findings indicated that childhood trauma increased the likelihood of reporting psychotic symptoms at age 12 years. Specifically, maltreatment by adults and bullying by peers, both of which are characterized by the intention to

harm were strongly associated with psychotic symptoms. The relationship between trauma and psychotic symptoms was consistent irrespective of whether trauma was experienced in early or mid-childhood. These associations remained when confounding factors, such as socioeconomic status, low IQ, early psychopathology and genetic susceptibility (parents with a diagnosis of psychosis) were controlled for.

Wigman et al. (2012) examined the contribution of genetic liability (measured by parental psychopathology) and its interactive effects with the environment (measured by childhood trauma) on developmental patterns of subthreshold psychotic experiences in a general population sample of 2230 adolescents. Participants were followed from age 10 to 16 years. As identified in the Wigman et al. (2011a) study, there were four developmental trajectories: low, decreasing, increasing and persistent. They found that trauma significantly predicted decreasing (OR= 1.32, 95% CI, 1.21-1.44, $p<.001$), increasing (OR= 1.41, 95% CI 1.28-1.55, $p<.001$) and persistent trajectories (OR= 1.85, 95% CI 1.48-2.31, $p<.001$). Additionally, adolescents whose parents had experienced psychotic psychopathology were more likely (OR= 3.72) to experience persistent subthreshold psychotic experiences. Similarly, to the Arseneault et al. (2011) study, they did not find an interaction between childhood trauma and parental psychopathology; suggesting the childhood trauma acts independently of genetic vulnerability to increase the presence of psychotic symptoms. The Wigman et al. (2012) study assumes that there is a genetic component for psychotic experiences and that parental psychopathology is an indicator of this influence. It is plausible that parental psychopathology may influence psychotic experiences in childhood via other mechanisms rather than a purely genetic influence. For example, young people may take on responsibilities at younger age in the context of caring for their parents, or that parent's experiences of mental health may influence family relationships and their care of the child. It is possible that these caring responsibilities and relationships may potentially interact with emotional experiences and influence the presence of UEs in childhood.

1.8.2. Childhood Adversity, Unusual Experiences, and Associations with Psychological Processes

The literature review identified three studies that investigated experiences of adversity or negative life events with UEs, together with other psychological processes that may be involved in the relationship. Two of these studies considered mediating relationships.

Ames et al. (2013) tested for a psychological model of PLEs, deduced from adult cognitive models of positive psychotic symptoms (Garety et al., 2001, 2007). This study focused on overall PLE severity which encompassed PLE conviction, frequency, distress and impact for nine experiences, and associated psychological processes in a group of CAMHS children. Consistent with adult models, PLE severity was associated with emotional difficulties, cognitive biases and negative life events, each of these factors made an independent contribution to PLE severity. Their findings demonstrate that PLEs associations relating to emotions and adverse events reported in a general adolescent population are also replicated in a clinical group. Using an overlapping sample with the Ames et al. study (2013), Anilmis et al. (2015) investigated whether negative schematic beliefs mediated the relationship between victimising experiences (e.g. bullying) and distressing UEs. Consistent with cognitive models, negative schematic beliefs about oneself and others mediated the relationship between victimising experiences and distressing UEs.

Fisher and colleagues (2013) employed a prospective longitudinal design in the southwest of England, using a community birth cohort sample of 6692 children, and investigated the affective and cognitive pathways between different forms of CA and psychotic symptoms in adolescence. In their study, they found that the association between experiences of harsh parenting and psychotic symptoms was mediated by depression, anxiety, external locus of control and low self-esteem. However, these variables only partially mediated the relationship between bullying, exposure to domestic violence and psychotic symptoms. These partial mediating relationships suggest that other affective and cognitive processes may be involved in the mechanisms which underpin the association between CA and psychotic symptoms in adolescence. Their study was limited by

using a categorical measure of anxiety; anxiety has been proposed as a significant factor in the pathway between victimisation and psychosis (Freeman & Fowler, 2009) and perhaps the categorical measure was not sensitive enough.

1.8.3. Specific Unusual Experiences

The literature review identified four studies that investigated specific types of experiences, namely voice-hearing, paranoia, and grandiose beliefs.

Escher, Romme, Buiks, Delespaul, and van Os (2002a) followed a group of 80 children (mean age 12.9 years) in Netherlands, who heard voices over a three-year period. Approximately 50% of the children heard voices and accessed mental health services. Consistent with other studies, 60% children experienced voices that discontinued over the three-year period. Predictors of voice persistence included severity of voices, associated anxiety and depression and higher rates of dissociation. They found distinct differences between children who heard voices and accessed mental health services compared to those who did not. Those children accessing mental health services were more likely to report CA, current problem behaviours, anxiety, and depression. Additionally, they were more likely to report emotional triggers for their voices, hold negative emotional appraisals towards their voice and report their voices had more influence over their emotions and behaviour. This suggests that the need for care and persistence of voices was influenced by voice appraisals and associated anxiety and depression, rather than the voice hearing experience itself. They also found that those accessing mental health services exhibited a more passive coping-style (e.g. ignoring), which is consistent with the idea that the need for care is related to the way a person interacts with their voice (Heriot-Maitland, Knight, & Peters, 2012). It is important to acknowledge that young people may have been encouraged by others, including health professionals, to adopt a passive coping style of ignoring. It may have been regarded that these experiences were not meaningful and by ignoring them they would reduce in frequency. In adult qualitative studies, it has been identified that when UEs are not acknowledged and integrated within one's personal context, UEs are likely to impact the person unhelpfully. The acknowledgement of UEs can give meaning and purpose to the experience and promote an enriching understanding (Heriot-Maitland et al.,

2012). Therefore, it is imperative that health professionals and others within the young person's system are aware of helpful ways to respond to and cope with experiences that encourages the elaboration of purpose and integration. Furthermore, voice appraisals, anxiety, depression, reported recent stressful life events, and perceived influence of the voice on emotions and behaviour was also strongly associated with delusion formation (Escher et al., 2002b).

Bartels-Velthuis and colleagues (2012) also studied auditory hallucinations in 337 children in the general population of Netherlands over a 5-year period. In their study, 24% of children reported auditory hallucinations at both baseline and follow-up (persistent group), and 9% reported auditory hallucinations at follow-up only (incident group). They found that traumatic experiences and stressful events were strongly associated with membership of both the persistent and incident groups. Additionally, children who reported both auditory hallucination and delusions experienced more traumatic and stressful events compared with children who reported either auditory hallucination or delusions. The authors of the study suggested that exposure to trauma or stressful events contributes to auditory hallucination persistence, which in turn may influence the presence of delusions, as individuals search for meaning for their perceptual experience.

Using the same sample as the Anilmis et al. (2016), Ruffell and colleagues (2016) considered if cognitive, emotional and social processes differed across UEs characteristics in childhood. They focused on dimensional attributes of UEs (e.g. conviction, frequency, distress, and impact) and UE content type (based on Wigman et al., 2011b: hallucinations, delusions, paranoia, grandiosity, and paranormal beliefs). They found that negative life events were associated with frequency of UEs, hallucinations, and paranoia. Additionally, emotional difficulties were associated with UEs distress, impact, hallucinations and paranoia. These findings support literature that emphasise the role of CA and emotional processes in hallucinations and paranoia. Their findings also suggest that targeted interventions that focus on emotions and adversity may be particularly effective for hallucination and paranoia experiences in a child and adolescent population.

All the above studies demonstrated a relationship between different types of CA and presence of UEs in a child and adolescent population. However, only four studies considered specific experiences, in most of the studies a range of experiences were combined to create a homogeneous, overarching group of UEs, and analyses were often conducted using the total number of experiences or a dichotomous variable. Only two studies in the database search investigated mediating relationships between CA and UEs (Anilmis et al., 2015; Fisher et al., 2013), both of which used an overarching measure of UEs rather than considering specific experiences. Therefore, further research is needed to investigate whether CA is associated with specific experiences of paranoia, voice-hearing and visual experiences and which psychological processes may mediate this relationship in a child and adolescent population.

1.9. Rationale, Aims, and Hypotheses

This section will bring together the different areas of research discussed in the introduction chapter and will identify the current gaps in research, which the current study aims to address.

UEs in a child and adolescent population have been found to be common (Kelleher et al., 2012a), however, a small but significant proportion of young people have experiences that are persistent in nature (Wigman et al., 2011a), cause them distress and can impact daily functioning (Kelleher et al., 2015). Research has also demonstrated consistent associations between CA and UEs (Arseneault et al., 2011; De Loore et al., 2008). Furthermore, persistent UEs have been associated with a later diagnosis of psychosis (Dominguez et al., 2011), and mental health more broadly in childhood and adolescence (Downs et al., 2013; Kelleher et al., 2012b). For this reason, talking therapies have been recommended for young people experiencing distressing and impacting UEs (NICE, 2013). Presently, our understanding of UEs and targeted therapies in a child and adolescent population is in its infancy. Much of our understanding of UEs is derived from cognitive models of psychosis in adults and few studies in a child and adolescent population have evaluated the underlying psychological processes between the CA and UEs relationship.

In adults, the trauma adversity link with psychosis is robust (Bentall et al., 2012; Hardy et al., 2016; Read et al., 2005). Based on cognitive models it recognised that different psychological processes may be involved in the formation and maintenance of paranoia and voice-hearing, therefore there has been a shift towards individual experience models (Garety & Freeman, 2013). In adults, larger effect sizes have been evidenced for targeted interventions (Freeman & Garety, 2014; Garety et al., 2015) therefore, research developments have focused on identifying psychological processes that explain the relationship between CA and individual experiences. Studies with adults have found that anxiety and negative self-beliefs mediate the relationship between trauma and paranoia, but not voice-hearing (Fisher et al., 2012; Freeman & Fowler, 2009; Gracie et al., 2007). It is proposed that early life experiences influence negative beliefs about oneself and threatening beliefs about others, these beliefs may give rise to anxiety; the combination of these factors then contributes to the occurrence and persistence of paranoia. On the other hand, dissociation has been found to mediate the relationship between trauma and voice-hearing but not paranoia (Pilton al., 2015). It has been suggested the dissociative attachment destabilises an individual, and can make it difficult to discriminate internal generate events from external (Kilcommons & Morrison, 2005).

Few studies have evaluated the mediating psychological processes in a child and adolescent population, and those that have considered experiences as a homogenous group rather than individual experiences. Researchers and clinicians must remain cautious that relationships found in adults are not generalised to a child and adolescent population without investigation. Therefore, there is a need for research to study psychological processes that may mediate the relationship between CA and individual experiences, so that professionals may better support young people presenting with distressing experiences. Furthermore, research in this area may also contribute to a better understanding of psychological processes that are protective against associated distress. An increased understanding of these pathways may contribute to the development of talking-therapies that reduce distress and enhance future mental wellbeing.

This study will consider specific experiences of paranoia, voice-hearing, and visual experiences, as these experiences are commonly reported in a child and adolescent population (Kelleher et al., 2011), and have been related to associated distress, emotional, and behavioural difficulties (Wigman et al., 2011b). This study aims to investigate associations between CA and the specific experiences, in addition to considering the mediating role of negative affect, schemas, and dissociation within this relationship.

Primary hypotheses:

1. Childhood adversity will be associated with unusual experiences of paranoia, voice-hearing, visual experiences and negative affect
2. Negative affect will be associated with paranoia, voice-hearing, and visual experiences
3. Negative affect will mediate the relationship between childhood adversity and paranoia but not voice-hearing and visual experiences.

Secondary hypotheses will consider specific relationships in sub-samples:

4. In a sub-sample of young people (community CAMHS, 8-18 years) schemas will mediate the relationship between childhood adversity and paranoia but not voice-hearing and visual experiences.
5. In a sub-sample of young people (community & inpatient CAMHS, 12-18 years) dissociation will mediate the relationship between childhood adversity and voice-hearing and visual experiences but not paranoia.

2. METHOD

2.1. Overview

This chapter will discuss the epistemology, methodology, and method used in this study to address the research hypotheses. The chapter will begin by outlining the study's epistemological position and rationale for the study design of secondary data analysis of existing data. The chapter will then go on to provide details of the method, including participant selection, measures, ethical considerations for the study, and approach to statistical analysis.

2.2. Epistemological Considerations

This study adopted a realist ontological position. There was an assumption that there is a 'real' world in which physical structures, social structures, and psychological processes exist, and these exist independent of the researcher's understanding of them (Willig, 2016). Epistemology refers to how we come to understand and gain knowledge of reality; Willig (2012) identifies three epistemological frameworks: realist, phenomenological, and social constructionist. Within a realist framework, there is an assumption that psychological processes and patterns can be identified and captured by the researcher. In realism, there is a continuum from naïve to critical. Naïve realists hold the view that knowledge can be derived from data observations, and that these observations directly reflect reality. In contrast, the critical realist position maintains that any data gathered from observations is limited in its ability to access 'reality' (Willig, 2012). It is not possible to fully comprehend reality as our perceptions are shaped by own research interests and limited by our own historical, social and cultural lens (McEvoy & Richards, 2006); such that standardised measures used in research are reflective and mediated by current theoretical understandings. Therefore, as researchers, we can obtain feedback and further our knowledge in those aspects of reality that are accessible to us.

Furthermore, critical realists argue that data are not a direct reflection of reality, as events are caused by multiple interacting causal processes including material, individual and social (Elder-Vass, 2012). Importantly, from a critical realist

position research participants do not consciously need to be aware of what processes are influencing their experiences (Willig, 2012). This is significant for the current study, as research participants may not have been aware of the interacting causal psychological, social or cultural processes that were influencing their distressing UEs. Critical realists remain open to the idea that data need be interpreted within a social, historical and cultural context, however, this does not act as an obstacle in exploring processes and patterns (Elder-Vass, 2012). Pilgram and Bentall (1999) argue that critical realism is a useful approach for furthering our understanding of mental health difficulties, as it “respects empirical findings about the reality of misery and its multiple determinants but does not collapse into the naive realism of medical naturalism” (pp. 271).

Within this epistemological position, it is maintained that the choice of methods used within research is dependent on the type of research questions asked. As discussed in the introduction chapter, the research hypotheses for this study concerned associations and mediating relationships. Quantitative methods involving the use of standardised questionnaires and statistics have been advocated for the identification of patterns, associations and causal mechanisms (McEvoy & Richards, 2006). Accordingly, the current study, which considered experiences of adversity and unusual beliefs and perceptions, assumed a critical realist epistemological stance and a quantitative method. This position was adopted as it was felt that it was important to acknowledge that a ‘reality’ existed in which research participants had lived experience of CA and UEs, whilst also recognising that what constitutes distressing UEs is influenced by psychological processes, social factors and cultural interpretations (Morrison, 2001).

2.3. Design

Research hypotheses were investigated using a cross-sectional design, and a combination of tests of association, between groups, and regression analyses to test for mediation. The study comprised secondary data analysis, using data from three studies. This design was implemented in the context of the epistemological position, and with the research hypotheses in mind. As discussed, a quantitative approach using self-report questionnaires permits for the investigation of patterns, associations and mediating relationships. For the study to have

adequate power to detect the different relationships in the proposed hypotheses, multiple statistical tests would need to be employed and a large sample was needed (Dancey & Reidy, 2014).

Prior to commencing clinical training, the researcher of the current study was part of a research team and recruited for a study which investigated UEs; as such the researcher was aware of three existing studies which included data on a range of UEs and emotional distress. As discussed in the introduction, there is limited research on specific paranoia, voice-hearing and visual experiences in a child and adolescent population; the research hypotheses proposed in this study aimed to address some of these gaps in the research. Consequently, the researcher approached the chief investigator of the three studies to request permission to use the data for secondary data analysis to investigate these hypotheses, with an adequately powered sample size. The combined anonymised dataset of the three studies was created specifically for the current study. Up to the present time, participant data from the three studies has not been combined for any other purpose and the proposed research hypotheses for this study have not been addressed in any of the three original studies or in wider literature in a child and adolescent population.

2.4. Participants

2.4.1. Selection of Participants

This study was conducted using anonymised, baseline pre-existing data, from three original studies. Participant data were gathered from three studies that considered a range of emotional, social, cognitive and behavioural processes that were of interest in the investigation of childhood UEs. Participants were specifically recruited for and consented to the original studies. In all three studies, participants were required to have sufficient English language skills, so that they may provide informed consent and complete the measures. The exclusion criteria for all three studies were the presence of a known learning disability and UEs in the context of a known organic or neurological condition (e.g. brain injury). The three component studies are listed below.

- I. *Coping with Unusual Experiences (CUES; National Research Ethics Service Committee reference: London Hampstead11/LO/0023)*¹: This study recruited children and young people aged 8-14 years from waiting lists across three community, tier two, Child and Adolescent Mental Health Services (CAMHS) in South London (n=101). Children and young people were referred to CAMHS for a broad range of emotional and behavioural difficulties, usually, these difficulties did not meet the criteria for a formal psychiatric diagnosis. The recruitment of participants for this study began in November 2011 and was completed in March 2014. The participant demographics for this sample were 61 males and 40 females, of which 52 participants identified as non-BME, and 49 participants identified as BME. The mean age of the sample was 11.63 years (standard deviation; SD =1.99). Baseline data for this sample included both young people with and without UEs.
- II. *Inpatient Stay Improvement Study (NRES reference: London Brent12/LO/1984)*: This study recruited young people aged 12-18 years from a South London, tier four, inpatient CAMHS (n=45). Young people were referred for an inpatient stay for an intensive assessment and/or intervention, often young people presented with a deterioration in their mental health and concerns for their safety. The recruitment of participants for this study began in 2014 and was completed in 2016. The participant demographics for this sample were 14 males and 31 females, of which 33 participants identified as non-BME, and 12 participants identified as BME. The mean age of the sample was 16.47 years (SD =.69). Baseline data for this sample included both young people with and without UEs.
- III. *Coping with Unusual Experiences Plus (CUES Plus; NRES reference: London Hampstead 14/LO/1970)*²: Participants were aged 12-18 years and were recruited from three community, tier 3 CAMHS in South London. Young people referred to the service, generally presented with more

¹ The author collected data for this original study in the capacity of a research worker prior to the commencement of training.

² The author collected data for this original study as a clinical doctoral researcher during training.

severe, complex and persistent emotional and behavioural difficulties. The first cohort of data collected up until February 2017 was available and included in the secondary data analyses (n=103). The participant demographics for this sample were 27 males and 76 females, of which 51 participants identified as non-BME, and 52 participants identified as BME. The mean age for the sample was 14.79 years (standard deviation; SD =1.57). Baseline data for this sample included only young people who reported a distressing and/or impacting UE.

2.4.2. Criteria for the Selection of Participants for the Current Anonymised Study

- Appropriate age range 8-18 years (Study I: 8-14 years; Studies II and III: 12-18 years).
- Accessing the targeted service (Study I: Tier 2 community CAMHS; Study II: Tier 4 Inpatient CAMHS; Study III: Tier 3 community CAMHS).
- Completed measures of interest, see below.

2.5. Measures

For each of the three original studies, demographic data (gender, age, ethnicity) was collected from the young person and corroborated by family members when involved. For the current anonymised study, measures completed at baseline in the three original studies were used. A focus group was conducted during the selection process of measures as part of the CUES study, all measures (except for the Adolescent Dissociative Experiences Scale) were reviewed by parents/carers and young people on an adolescent inpatient ward (12-18 years). Feedback from the focus group confirmed that the questions within the measures were acceptable, appropriate and feasible to ask.

2.5.1. Unusual Experiences Questionnaire (UEQ; Ames et al., 2014; Laurens et al., 2007; Laurens et al., 2012)

The UEQ was completed as part of the baseline assessment battery in all three larger studies. This is a nine-item self-report questionnaire assessing a range of UEs; five items were adapted from the Diagnostic Interview schedule for Children (Costello, Edelbrock, Kalas, Kessler, & Klaric, 1982), and a further four items were included to capture a wider range of UEs (Laurens et al., 2007). In this

study, the UEQ total score was used for descriptive analyses only, and items three (*“Have you ever thought that you were being followed or spied upon?”*), four (*“Have you ever heard voices that other people could not hear?”*), and nine (*“Have you ever seen something or someone that other people could not see?”*) were used to assess the specific experiences of paranoia, voice-hearing and visual experiences for the main research hypotheses. Previous research has completed a confirmatory factor analysis on the UEQ and verified that item three, loaded onto a paranoia factor (0.9), and items four and nine loaded onto a hallucinations factor (-0.9; Ruffell et al., 2016).

Each UE was rated on conviction (0- not true, 1- somewhat true, 2- certainly true); frequency in the last two weeks (0- not at all, 1- only once, 2- 2-4 times, 3- 5 or more times); distress (0- not at all, 1- only a little, 2- quite a lot, 3- a great deal) and impact at home or school (0- not at all, 1- only a little, 2- quite a lot, 3- a great deal). Severity scores for individual UEs ranged from 0-11, and the UEQ total score ranged from 0-99, with higher scores indicating greater distress and impact (Ames et al., 2014). A UE was identified to be distressing if the young person endorsed a score of ≥ 1 on either distress or impact (Anilmis et al., 2015; Ruffell et al., 2016).

Kelleher et al. (2011) conducted a validation study using a community sample of 44 children aged 11-13 years; their study included the three items used in this study to assess the specific experiences of paranoia, voice-hearing, and visual experiences. They compared the completion of a self-report questionnaire to detailed clinical interviews and calculated item sensitivity, specificity, positive predicted value and negative predicted value. The items assessing paranoia, hearing voices, and visual experiences had the greatest predictive value; with hearing voices having the strongest predictive power for any psychotic-like experience. Furthermore, the UEQ has previously been used in a large community sample of children aged 9-12 years, the questionnaire was found to be approachable and feasible to use, with 58.9% of children reporting at least one ‘certain truly’ experience in the last two weeks (Lauren et al., 2007).

2.5.2. Strengths & Difficulties Questionnaire (SDQ; Goodman, 2001)

The SDQ was completed as part of the baseline assessment battery in all three

larger studies. The SDQ is a 25-item self-report questionnaire, consisting of five subscales: emotional symptoms, conduct problems, hyperactivity-inattention, peer problems, and prosocial behaviour. Each subscale consists of five questions, and responses are scored 0- not true, 1- somewhat true-, 2- certainly true, giving five subscale scores of 0-10. A total difficulties score is calculated by summing four of the subscales, excluding prosocial behaviour, providing a total score of 0-40, with higher scores indicating greater difficulty. In this study, the SDQ total score was used for descriptive analyses only, and the emotional symptoms subscale (SDQ-E), which assesses childhood anxiety and depression (worries, fears, mood and somatic complaints) was used as a measure of affect. Clinical scores on the SDQ-E (≥ 7) have reported to reliably predict future depressive, phobic or anxiety diagnoses (Goodman, 2001).

The SDQ is routinely used in CAMHS services as part of the assessment process (McDougall, Worrall-Davies, Hewson, Richardson, & Cotgrove, 2008). The self-report version of the SDQ has demonstrated satisfactory reliability and validity in a British sample of 11-15-year-olds (Goodman, 2001), and in a sample of children aged 8-13 years (Muris, Meesters, Eijkelenboom, & Vincken, 2004). Furthermore, the SDQ total and the SDQ-E subscale have been shown to be valid and reliable across ethnic groups (Richter, Sagatun, Heyerdahl, Oppedal, & Roysamb, 2011). Norms of 'normal' (0-15), 'borderline' (16-19), and 'abnormal' (20-40) have been established for the SDQ total score, with 80% of the community sample falling in the 'normal' range, 10% in the 'borderline' and 10% in the 'abnormal' range. Norms for the SDQ-E are, 'normal' (0-5), 'borderline' (6), and 'abnormal' (7-10; Goodman, Meltzer, & Bailey, 2003). The self-report version of the SDQ has reliably discriminated between a general population sample, and children and adolescents accessing mental health services, those completing the SDQ and accessing mental health services were six times more likely to have difficulty score in the 'abnormal' range (Goodman, Meltzer, & Bailey, 2003).

2.5.3. Recent Episodic Life Events (Wilkinson, Dubicka, Kelvin, Roberts, & Goodyer, 2009)

The Recent Episodic Life Events questionnaire was completed as part of the baseline assessment battery in two of the three larger studies (CUES and

CUES+; $n=204$). This a 12-item self-report questionnaire, ten items assess the occurrence of specific life events in the last year, and two items assess the occurrence of any other life event in the last year and across the life-span. Specific life events are categorised under four social domains: personal disappointments (e.g. difficulties in relationships with family, friends, peers), dangerous events to self-involving physical or mental harm (e.g. illness, accident, hospitalisation, environmental threats), dangerous events to significant others involving physical or mental harm, and permanent loss (e.g. loss by moving, loss by death).

Participants are asked to rate if they had experienced the life event by giving a dichotomous yes or no response. For each endorsed life event, emotional impact is then assessed on a Likert scale of 1-very good/pleasant/happy, to 5-very bad, unpleasant, sad and painful. For emotional impact responses of 4 or 5, participants are then asked about the duration of impact. In this study, any life event that endorsed an emotional impact rating of 4 or 5 (quite bad, very bad, unpleasant, sad and painful) and lasted for more than two weeks was identified as a significant life event (Ames et al., 2014; Wilkinson et al., 2009) and acted as a measure of the number of CA experiences. For the third study (ISIS), an adapted checklist was employed, where young people rated the age of occurrence and (if applicable) ending, of similar adverse experiences involving physical and emotional harm to self and others. Across all three studies, CA was coded as 'none', 'one' or 'more than one' experiences. The Recent Episodic Life Events questionnaire has demonstrated good test-retest reliability for all life events ($k>0.85$), and validity with parent-report of life events ($k>0.9$) in an adolescent population (Wilkinson et al., 2009).

2.5.4. Brief Core Schema Scale (BCSS; Fowler et al., 2006)

The BCSS was completed as part of the baseline assessment battery in the CUES and CUES+ studies ($n=201$). The BCSS is a 24-item self-report questionnaire, consisting of four subscales: positive self-evaluations, positive other-evaluations, negative self-evaluations and negative other-evaluations. Each subscale contains six statements, and participants are asked to first rate whether they agree with the statement with a dichotomous yes or no response. If

participants agree with the statement, they are then asked to rate the strength of their belief on a Likert scale of 1-believe it slightly, 2- believe it moderately, 3- believe it very much and 4- believe it totally; giving a total subscale score of 0-24, with higher scores indicating extreme evaluations of self or others. The BCSS was developed for adults; it was validated in an adult general population sample and a clinical sample of adults with a diagnosis of psychosis. The BCSS demonstrated good internal consistency for subscales ranging from $r = 0.78-0.88$, and test-retest reliability at three weeks, ranging from $r = 0.7-0.84$ (Fowler et al., 2006).

The suitability of using the BCSS in a child and adolescent population was investigated in the CUES study (REC: 11/LO/0023; Noone et al., 2015). Prior to the inclusion of the measure in the study the researcher facilitated a focus group with adolescents (12-18 years) and parents/carers on an inpatient ward. Following the focus group, the order of the items was rearranged so that questionnaire began and ended with positive statements. Additionally, the language was adapted on one item from 'others are devious' to 'others are devious or liars', as young people were not familiar with the word 'devious'. These changes were agreed with the lead author of the original BCSS measure. In line with the focus group, the BCSS was found to be appropriate for a child and adolescent population as participants responded consistently to items. There was strong internal reliability for each subscale: positive self-evaluations ($\alpha=0.7$), positive other-evaluations ($\alpha=0.8$), negative self-evaluations ($\alpha=0.7$) and negative other-evaluations ($\alpha=0.8$); this is consistent with the validation study in adult populations (Noone et al., 2015).

2.5.5. Adolescent Dissociative Experiences Scale (A-DES; Armstrong, Putnam, Carlson, Libero & Smith, 1997)

The A-DES was completed as part of the baseline assessment battery in the CUES+ study only (REC:14/LO/1970; $n=103$). The A-DES is a 30-item self-report questionnaire for assessing dissociative experiences in an adolescent population. The measure consists of four subscales covering a range of constructs that contribute to the overarching construct of dissociation:

- I. Dissociative amnesia (seven items): lapses in memory that suggest difficulties in information processing.
- II. Absorption and imaginative involvement (six items): preoccupation with fantasy and difficulties in discriminating fantasy from reality.
- III. Passive influence (five items): not having control of one's bodily experiences.
- IV. Depersonalisation and derealisation (12 items): feeling disconnected from one's emotions or behaviours, and interpersonal relationships feeling unreal and changeable.

Participants are asked to rate a statement about an experience or coping skill on a Likert scale of 0-it never happens to me, to, 10-it always happens to me. The A-DES total score is calculated by summing the score of all items and dividing by 30, giving the mean score, total scores can range from 0-10. Scores above 3.7 are suggestive of significant dissociative experiences, the mean score for adolescents with a diagnosis of dissociative disorder was 4.85 (Armstrong et al., 1997). The A-DES was validated on a sample of 102 adolescents, aged 11-18 years, it demonstrated good reliability ($\alpha=0.9$), with internal consistency for each subscale ranging from $\alpha=0.72-0.85$ (Armstrong et al., 1997).

2.6. Ethical Considerations

2.6.1. Ethical approval

Each of three original studies that comprise the anonymised secondary data sample for this current study had already obtained NHS ethics approvals (REC: 11/LO/0023; REC: 12/LO/1984; REC:14/LO/1970; Appendix B). The researcher and the chief investigator (CI) for the three original studies obtained guidance from the Health Research Authority (HRA) and the sponsor of the three original studies, regarding governance and ethics for the current study. It was confirmed by the HRA if the data were anonymised, contained no identifiable information, and was being used in a manner that was in keeping with the original participant consent, to address research questions that were consistent with the stated purpose of the original studies, then the current study would not require a separate NHS ethics application or amendments to the existing NHS applications

for the original larger studies (Appendix C). It was detailed that the data needed to be anonymised by the research team of the three original studies, accordingly the data were anonymised by the CI. In accordance with the advice specified by the HRA and academic tutors the researcher submitted for ethical approval for the study to the University of East London, School of Psychology for research involving secondary analysis of existing data. Ethical approval was obtained from the University of East London ethics committee (Appendix D).

2.6.2. Combining the Data for the Current Study

Ethical and local sponsor approval was granted for the CI (CI and sponsor were common to the three studies), to create a fully anonymised combined dataset, to be used by the researcher of the current study (Appendix C). Datasets of the common variables required for this study were created from the baseline data for each of the three original studies. Datasets were labelled with their study of origin and each participant given a numerical code that was not associated with their original participant identifier. Participant identifiers were deleted to create anonymised databases. The anonymised databases were then combined. The combined dataset was created specifically for the current study.

2.6.3. Procedure, Consent, and Assent

The study protocol for recruitment for the three original studies was for the research worker to contact families who had agreed to be contacted for research purposes. In the community studies participants were on the waiting list or receiving care from the mental health team. For the inpatient study, all participants were currently receiving care. For the community studies, parents/carers were initially contacted by telephone and for the inpatient study, initial contact was either by telephone or in-person. Parents/carers and young people were provided with an information sheet for the corresponding study (Appendix E). Those interested in the study would then be invited to meet with a research worker to discuss the study in greater detail and have an opportunity to ask questions. For the community studies this meeting took place at the community team, their home or school, and for the inpatient study meetings took place on the ward. The information sheets for the three larger studies outlined how one of the overarching aims of the research was to gain a greater

understanding of the different processes contributing to UEs; parents/carers and young people consented for their data to be used in research for this purpose. The current anonymised study is consistent with this purpose. Both parental consent and young person assent were obtained for participants under the age of 16 (Appendix E). For participants 16 and older, young person consent was obtained; parental consent was sought if the young person agreed to familial participation.

The measures were completed alongside a trained research worker, to support the understanding of questions and to monitor any emotional responses to the measures. The order of administration of the measures was varied to maximize rapport building and engagement. Measures were either completed on an iPad or on paper copies.

2.7. Statistical Analyses

The Statistical Package for the Social Sciences, version 23 (IBM SPSS, 2015) was used for all statistical analyses. Descriptive statistics (histograms, boxplots, skewness, kurtosis) and the Shapiro-Wilk test were employed to examine the distribution of data. All variables, except for SDQ total and A-DES total were not normally distributed, so accordingly, non-parametric tests were used to address the research hypotheses. Initial analyses employing spearman's rank order correlations, Mann-Whitney-U tests, and Kruskal-Wallis tests were conducted to examine relationships between demographic variables (age, gender, ethnicity, clinical service) and variables of interest to the study (severity of paranoia, voice-hearing, and visual experiences, affect, positive and negative self and other-evaluations, and dissociative experiences).

2.7.1. Primary Hypotheses

For research hypothesis one (H1), to investigate whether CA was associated with severity of paranoia, voice-hearing, visions and affect, the Jonckheere-Terpstra test for ordered alternatives was used. The number of CA exposures (none, one, and more than one) was entered as an independent group variable, and severity of paranoia, voice-hearing, visions (range: 0-11) and levels of affect (range: 0-10)

was entered as dependent variables. The overall difference across CA groups and pairwise comparisons between groups with computed adjusted p-values were considered (none vs. one, none vs. more than one, one vs. more than one). Goodman and Kruskal gamma tests were used to test the association between the number of CA experiences and the absence or presence of each distressing UE type (score of ≥ 1 on either distress or impact).

For research hypothesis two (H2), to consider whether levels of negative affect (range: 0-10) were associated with severity of paranoia, voice-hearing, and visual experiences (range: 0-11) a Spearman's Rank Order Correlation (Rho) was used. Additionally, Mann-Whitney-U tests were carried out to determine the association between the presence of distressing UEs (score of ≥ 1 on either distress or impact) and negative affect.

Research hypothesis three aimed to examine whether affect mediated the relationship between CA and paranoia but not voice-hearing or visual experiences. Baron and Kenny (1986) argue that variable acts as a mediator if:

- I. The causal variable is associated with the outcome
- II. The causal variable is associated with the mediator
- III. The mediator is associated with the outcome variable
- IV. Mediation occurs, if when the causal variable and mediator are entered in an equation, a previously significant relationship between the causal and outcome variables disappears. Partial mediation occurs if the relationship with the causal variable is reduced in size.

For this hypothesis, the causal variable was CA, the outcome was the presence of each UE, and the mediator was affect. Mediation analyses were only planned for the UE if primary associations (steps I-III) were met in the tests for H1 and H2. Binary logistic regression analyses were employed to appraise step IV, as the data met the assumptions of ratio of cases to variables, linearity of the logit and multicollinearity. Firstly, CA (predictor variable) was entered alone with distressing UE (dependent variable). Secondly, CA and affect (mediator variable) were entered together to assess whether affect mediated the relationship

between CA and distressing UE. The non-significance of CA would be suggestive of full mediation and the reduction in the odds ratio for CA with significance would be indicative of partial mediation. Thirdly, demographic variables that had been found to have a significant relationship with the distressing UE would be entered as predictors alongside CA and affect. The method used for binary logistic regressions was 'Enter', this method permitted for all predictor variables to be entered into the model simultaneously. By doing so, the researcher could examine the overall contribution of predictors to the model as well as the individual contribution of a predictor, whilst also controlling for the effects of other predictors (Tabachnick & Fidell, 2014). While the data met the assumptions for a binary logistic regression, this was at the expense of a loss of information by employing the binary outcome variable for the presence of a distressing UE. An identical series of multiple regression analyses, with severity scores as the outcome variables, was therefore conducted as a sensitivity check. As the data did not meet all the assumptions of multiple regression analyses (ratio of variables to cases and multicollinearity were met, but normality, linearity and homoscedasticity of residuals were violated), caution was required in interpreting these analyses as standalone, their purpose was to inform the degree of confidence with which the binary regression analysis could be interpreted.

2.7.2. Secondary Hypotheses

Research hypotheses four aimed to test whether schemas mediated the relationship between CA and paranoia but not hearing voices or visual experiences. As for H3 mediation analyses were dependent on the demonstration of step I relationships between CA and each UE in H1, and subsequent demonstration of step II (association of CA and schemas, tested using a Jonckheere-Terpstra test), and step III (association of UEs with schemas, tested using Mann Whitney-U tests). If step I to III associations were demonstrated, binary logistic regressions were used to test for mediation (as above), with multiple regression as a sensitivity check.

For research hypothesis five to examine whether dissociative processes mediated the relationship between CA and voice-hearing and visual experiences but not paranoia, a comparable procedure was applied. A Jonckheere-Terpstra

test was employed to test the association of CA and dissociative experiences, Mann-Whitney U tests to consider the association of UEs with dissociative experiences, and, if steps I to III were demonstrated, binary logistic regressions to test mediating relationships with multiple regression as a sensitivity check.

2.7.3. Sample Size Considerations

H1 required a comparison between three CA groups, repeated for four variables (each UE and affect). Using G*Power 3.1 (Faul, Erdfelder, Buchner & Lang, 2009), a sample size of 219 participants was required to detect a 0.25 effect size, with 80% power and the p-value adjusted to 0.0125 to take account of multiple testing. Hypothesis two required a correlational analysis, between the three UE variables and affect. A calculation was performed using G*Power (Faul et al., 2009), with the test specified as a two-tail, point biserial correlation. A sample size of 177 participants was required to detect a correlation of medium effect size of 0.3, with an adjusted significance level of $p=.0125$, with a power of 95%.

For hypothesis three, and the secondary hypotheses four and five, a series of regression analyses were planned. Tabachnick and Fidell (2014) recommend for regression analyses that wish to examine individual predictor variables that the ratio of cases to independent variables should be $N \geq 50 + 8m$ (m = number of predictors). The maximum number of predictor variables in any one planned regression series was five, therefore requiring a minimum of 90 participants. The current sample size for each research hypotheses exceeded the minimum participant number needed.

2.7.4. Missing Data

There were ten participants in the anonymised data set that had not completed the UEQ measure, these participants were not included in any analyses as UEs were key variables of interest in all analyses, giving a total sample size of 249. The study protocol for the three original studies for item-level missing data was for missing items to be substituted with a prorated score (average score from available items). For the SDQ-E (five items) and for the four BCSS subscales (six items), if one item was missing, the missing item would be substituted with a

prorated score, if more than one item was missing from the subscale, a total score was not computed and the subscale was regarded as missing. For the A-DES (30 items), if two items were missing, they would be replaced with a prorated score, if more than two items were missing, the measure would be regarded as missing. Upon reviewing missing data, there was 4% missing data for the number of CA experiences and SDQ-E measure. Tabachnick & Fidell (2014) state that if less than 5% of data is missing in a random pattern, any procedure for handling missing data will produce similar effects. Accordingly, the decision was made to keep all participants and analyses were conducted using the 'exclude cases pairwise' option. Participants were only excluded if they were missing data for that specific analysis (Pallant, 2013), this option facilitated for more information to be used in the analyses where available.

3. RESULTS

3.1. Overview

This chapter outlines the participant demographics, procedures related to the distribution of data, the relationship between variables of interest and demographic characteristics, and the analyses for each of the research hypotheses.

3.2. Participant Demographics

The total sample size for the current study was 249 participants; Table 1 summarises the demographics of the sample. In this clinical sample, 22.9% reported no unusual experiences (UEs), 22.4% reported one UE, 21.4% reported two UEs, and 33.3% reported experiencing all three UEs in the last two weeks.

Table 1: Summary of Participant Demographics

Demographic	Subcategory/ Range	n (% of participants)/ Mean (SD)
Gender	Male	102 (41.0%)
	Female	147 (59.0%)
Age	8-18 years	13.81 years (SD: 2.51)
Clinical Service	Tier 2 Community CAMHS	101 (40.6%)
	Tier 3 Community CAMHS	103 (41.4%)
	Tier 4 Inpatient CAMHS	45 (18.1%)
Ethnicity	White British/Irish/Other	136 (54.6%)
	Black and Minority Ethnic (BME)	113 (45.4%)
Number of CA Exposures ³	None	64 (25.7%)
	One	50 (20.1%)
	More than one	130 (52.2%)
Distressing Paranoia Experience*	Absent	100 (40.2%)
	Present	149 (59.8%)
Distressing Voice-Hearing Experience*	Absent	102 (41.0%)
	Present	147 (59.0%)
Distressing Visual Experience*	Absent	128 (51.4%)
	Present	121 (48.6%)

n: Number of participants; SD: Standard Deviation; CA: Childhood Adversity.

*Distressing UEs (score of ≥ 1 on either distress or impact) in the last two weeks.

³ Five participants did not complete the childhood adversity measure, giving a total n=244 for this measure

3.3. Distribution of Data

To ascertain if the distribution of data met the assumptions for parametric tests; skewness, and kurtosis, histograms (Appendix F), and boxplots were examined and a series of Shapiro-Wilk tests were conducted (Table 2). The Shapiro-Wilk test was used rather than the Kolmogorov-Smirnov test, as the Shapiro-Wilk test detects differences from normality in both small and large sample sizes (Field, 2013). The Shapiro-Wilk test revealed that all variables, except for the A-DES total score were non-normally distributed. Based on z-scores (>1.96 , $p < 0.05$), all scores indicated significant problems with skew, kurtosis or both, except for SDQ total score, BCSS positive-other, and A-DES total. It is advised that in large samples sizes of 200 or more participants, skewness and kurtosis statistics should be used in conjunction with visual representations of data distribution (e.g. histograms; Field, 2009; Tabachnick & Fidell, 2014). Combined, these visual and statistical representations of data distribution indicated that much of the data was not normally distributed, except for SDQ total score and A-DES total. It has been documented that transformation can cause difficulties with the interpretation of variables if the scale is meaningful (Tabachnick & Fidell, 2014). There was a meaningful proportion of children scoring 0 on experiences of paranoia (40.2%), hearing voices (41.0%) and visual experiences (51.4%). The score of 0 was meaningful in this study as it indicated an absence of UEs, accordingly the data was not transformed and non-parametric tests were used to analyse the data.

Box plots were examined to identify any outliers; one outlier was identified for the UEQ total and BCSS negative self-subscale, no outliers were identified for the individual experiences of paranoia, voice-hearing or visual experiences. There are ongoing debates around the handling of outlier data (Pallant, 2013), however, Field (2013) advises against the removal of data unless the scores are not from the population of interest. As the outlier was representative of a population of interest, the data for that participant was kept and included in subsequent analyses.

Table 2: Descriptive Statistics of Variables of Interest.

Variable	N	Mean	SD	Range	Skewness z-score	Kurtosis z-score	Shapiro- Wilk
Age	249	13.81	2.51	8.25- 17.00	-3.14	-2.65	0.93; p<.001
UEQ: Total Score	249	20.45	18.88	0-99	7.52	4.64	0.90 p<.001
Severity of Paranoia	249	3.88	3.76	0-11	2.46	-4.02	0.86 p<.001
Severity of Voice- Hearing	249	4.41	4.16	0-11	1.42	4.90	0.84 p<.001
Severity of Visual Experiences	249	3.36	3.94	0-11	4.27	-3.58	0.79 p<.001
SDQ: Total Score ⁴	244	20.13	6.82	0-40	-1.72	-0.36	0.90 p=.04
SDQ-E ⁴ :	244	6.33	2.48	0-10	-3.78	-1.10	0.94 p<.001
BCSS: Positive Self*	201	11.65	6.15	0-24	-1.48	-2.29	0.97 p<.001
BCSS: Negative Self*	201	6.61	6.21	0-24	4.36	-1.23	0.90 p<.001
BCSS: Positive Other*	201	11.69	6.09	0-24	-0.71	-1.94	0.98 p<.001
BCSS: Negative Other*	201	9.10	6.64	0-24	1.96	-2.48	0.95 p<.001
A-DES: Total Score**	103	4.68	2.00	0.59- 9.66	0.27	-1.38	0.99 p=.47

n: Number of participants; SD: Standard Deviation; UEQ: Unusual Experiences Questionnaire; SDQ: Strengths and Difficulties Questionnaire; SDQ-E: Strengths and Difficulties Questionnaire-Emotional Symptoms subscale; BCSS: Brief Core Schema Scale; A-DES: Adolescent Dissociative Experience Scale

* Sub-sample: tiers 2 and 3

**Sub-sample: tier 3

⁴ Five participants did not complete the Strengths and Difficulties Questionnaire, giving a total n=244 for this measure.

3.4. Relationship with Demographic Characteristics

Preliminary analyses were conducted to examine the relationships between demographic variables (age, gender, ethnicity, and clinical service; Tables 3-7) and the variables of interest (severity of paranoia experience, voice-hearing, and visual experience, SDQ-E, positive self, negative self, positive other, negative other, A-DES total). A non-parametric, Spearman's Rank Order Correlation (Rho) test revealed that age was positively and significantly related to all variables except for positive self, positive other, negative other and A-DES total (*Table 3*). Older participants showed higher levels of severity for paranoia, voice-hearing and visual experiences, higher levels of frequency for CA exposures, higher levels of negative affect, more extreme negative self- evaluations, and fewer positive evaluations of self and others.

Table 3: Spearman's Rank Order Correlation of Age

Variable	Age
Severity of Paranoia Experience	.27**
Severity of Voice-Hearing Experience	.29**
Severity of Visual Experience	.15*
Number of CA Experiences	.15*
SDQ-E	.26**
BCSS: Positive Self	-.22**
BCSS: Negative Self	.44**
BCSS: Positive Other	-.33**
BCSS: Negative Other	.11
A-DES Total	.04

CA: Childhood Adversity; SDQ-E: Strengths and Difficulties Questionnaire-Emotional Symptoms subscale; BCSS: Brief Core Schema Scale; A-DES: Adolescent Dissociative Experience Scale

** significant at $p < 0.01$, * significant at $p < 0.05$

A Goodman and Kruskal gamma test revealed positive, moderate association between number of CA exposures and gender, $G = .22$, $p = .04$, such that females reported more experiences of CA. A series of Mann-Whitney-U tests revealed significant gender differences in severity of paranoia ($U = 5677.50$, $p = .001$), voice-hearing ($U = 5761.00$, $p < .001$), SDQ-E ($U = 4029.50$, $p < .001$), positive self ($U = 3612.00$, $p < .001$), negative self ($U = 2802.50$, $p < .001$) and positive other ($U = 3511.50$, $p < .001$), such that female participants had higher median scores on

all variables except for positive self, where they had lower scores, compared to male participants.

Table 4: Mann-Whitney U Tests of Gender and Variables of Interest

Variable	U	n	Median	Z-score	r	p-value
Severity of Paranoia Experiences	5677.50	Male: 102 Female: 147	Male: 0 Female: 5	-3.37	-.21	.001
Severity of Voice-Hearing Experiences	5761.00	Male: 102 Female: 147	Male: 0 Female: 5	-3.23	-.20	.001
Severity of Visual Experiences	6635.50	Male: 102 Female: 147	Male: 0 Female: 3	-1.66	-.11	.09
SDQ-E	4029.50	Male: 99 Female: 145	Male: 6 Female: 7	-4.61	-.30	<.001
BCSS: Positive Self	3612.00	Male: 86 Female: 115	Male: 14 Female: 11	-3.27	-.23	.001
BCSS: Negative Self	2802.50	Male: 86 Female: 115	Male: 2 Female: 9	-5.28	-.37	<.001
BCSS: Positive Other	3511.50	Male: 86 Female: 115	Male: 14 Female: 11	-3.52	-.50	<.001
BCSS: Negative Other	3844.00	Male: 86 Female: 115	Male: 7 Female: 11	-2.70	-.19	.01
A-DES Total	973.00	Male: 27 Female: 76	Male: 4.86 Female: 4.59	-.40	-.04	.69

SDQ-E: Strengths and Difficulties Questionnaire-Emotional Symptoms subscale; BCSS: Brief Core Schema Scale; A-DES: Adolescent Dissociative Experience Scale

A Goodman and Kruskal gamma test showed no significant relationship between the number of CA experiences and ethnicity, $G=.11$, $p=.37$. There were no significant differences in the variables of interest between ethnic groups, except that BME participants reported more positive self-evaluations.

Table 5: Mann-Whitney U Tests of Ethnicity and Variables of Interest

Variable	U	N	Median	Z-score	r	p-value
Severity of Paranoia Experiences	7412.50	Non BME: 136 BME: 113	Non BME: 4 BME: 4	-.50	-.03	.62
Severity of Voice-Hearing Experiences	6905.00	Non BME: 136 BME: 113	Non BME: 5 BME: 4	-1.43	-.09	.15
Severity of Visual Experiences	7485.50	Non BME: 136 BME: 113	Non BME: 0 BME: 0	-.38	-.02	.71
SDQ-E	7168.50	Non BME: 135 BME: 109	Non BME: 7 BME: 7	-.35	-.02	.73
BCSS: Positive Self	4126.50	Non BME: 102 BME: 99	Non BME: 11 BME: 13	-2.24	-.16	.03
BCSS: Negative Self	4741.00	Non BME: 102 BME: 99	Non BME: 6 BME: 4	-.75	-.05	.45
BCSS: Positive Other	5034.00	Non BME: 102 BME: 99	Non BME: 12 BME: 12	-.04	-.03	.97
BCSS: Negative Other	44.74.50	Non BME: 102 BME: 99	Non BME: 7 BME: 10	-1.40	-.10	.16
A-DES Total	1175.50	Non BME: 51 BME: 52	Non BME: 4.52 BME: 4.62	-.99	-.10	.32

SDQ-E: Strengths and Difficulties Questionnaire-Emotional Symptoms subscale; BCSS: Brief Core Schema Scale; A-DES: Adolescent Dissociative Experience Scale

A Goodman and Kruskal gamma test showed no significant associations between the number of CA experiences and the three clinical services, $G=.02$, $p=.77$. A series of Kruskal-Wallis tests revealed significant differences across the three clinical services for severity of paranoia ($\chi^2=32.43$, $p<.001$), voice-hearing ($\chi^2=45.42$, $p<.001$), visual experiences ($\chi^2= 13.16$, $p<.001$) and affect ($\chi^2=25.99$, $p<.001$); with tiers 3 and 4 generally scoring higher.

Table 6: Kruskal-Wallis Tests of Clinical Service and Variables of Interest

Variable	χ^2 (2)	N	Median	p-value
Severity of Paranoia Experience	32.42	Tier 2: 101 Tier 3: 103 Tier 4: 45	Tier 2: 0 Tier 3: 5 Tier 4: 6	<.001
Severity of Voice- Hearing Experience	45.42	Tier 2: 101 Tier 3: 103 Tier 4: 45	Tier 2: 0 Tier 3: 7 Tier 4: 5	<.001
Severity of Visual Experience	13.16	Tier 2: 101 Tier 3: 103 Tier 4: 45	Tier 2: 0 Tier 3: 4 Tier 4: 0	<.001
SDQ-E	25.99	Tier 2: 96 Tier 3: 103 Tier 4: 45	Tier 2: 6 Tier 3: 7 Tier 4: 7	<.001

SDQ-E: Strengths and Difficulties Questionnaire-Emotional Symptoms subscale

Mann Whitney U tests revealed significant differences across tier 2 and 3 services for all schema beliefs ($p < .001$), except for negative other ($p = .09$), with tier 3 services scoring fewer positive-evaluations and more negative-evaluations (*Table 7*). Mediation hypothesis-testing analyses were repeated controlling for age, gender and clinical service sample where relevant, to assess the influence of demographic associations on reported findings.

Table 7: Mann-Whitney U Test of Clinical Service and Schemas

Variable	U	N	Median	Z-score	r	p-value
BCSS: Positive Self	3320.50	Tier 2: 98 Tier 3: 103	Tier 2: 14 Tier 3: 10	-4.19	-.30	<.001
BCSS: Negative Self	2068.00	Tier 2: 98 Tier 3: 103	Tier 2: 2 Tier 3: 10	-7.27	-.51	<.001
BCSS: Positive Other	3362.50	Tier 2: 98 Tier 3: 103	Tier 2: 14 Tier 3: 10	-4.09	-.29	<.001
BCSS: Negative Other	4358.50	Tier 2: 98 Tier 3: 103	Tier 2: 7 Tier 3: 10	-1.67	-.12	.09

BCSS: Brief Core Schema Scale

3.5. Primary Hypotheses

3.5.1. Research Hypothesis 1: Childhood Adversity will be Associated with Unusual Experiences of Paranoia, Voice-Hearing, Visual Experiences and Negative Affect.

It was hypothesised that a higher frequency of CA would be associated with higher levels of severity of paranoia, voice-hearing, visual experiences and affect, and an increased likelihood of the presence of distressing paranoia, voice-hearing, visual experiences.

The Jonckheere-Terpstra test was employed, this is a non-parametric test that assesses ordered difference in the medians of the groups that are being compared (Field, 2013).

3.5.1.2. *Considerations for Jonckheere-Terpstra Test for Ordered Alternatives:*

- The dependent variables (severity of paranoia, voice-hearing, visual experiences and affect) were measured at a continuous level (UEs: 0-11; affect: 0-10).
- The independent variable (CA) consisted of two or more ordinal, independent groups (none, one, more than one).
- There was an independence of observations; participants were assigned to one of the independent groups only.
- The distribution of scores in each independent group had the same variability in scores so that an accurate median could be calculated.
- Based on the existing literature the order of independent groups was agreed prior to the analysis. It was hypothesized that the greater the exposure to CA, the greater the severity in distressing paranoia, voice hearing and visual experiences and affect. The order was predetermined as 'smallest to largest'.

3.5.1.3. *Childhood adversity and paranoia:* A Jonckheere-Terpstra test showed a significant overall difference in paranoia severity between CA groups with higher median scores on paranoia experiences as the number of childhood exposures increased, $T_{JT} = 11,217.50$, $z = 3.96$, $r = .25$, $p < .001$.

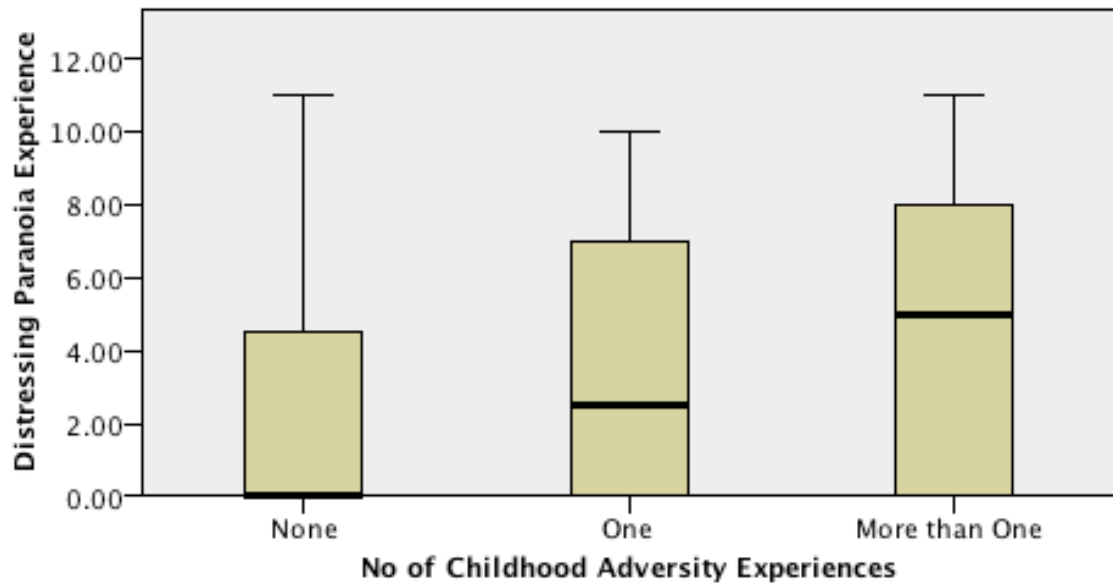


Figure 1: Median scores for severity of paranoia and childhood adversity

Pairwise comparisons with computed adjusted p-values revealed significant differences in paranoia severity between participants with more than one CA experience and no CA experience ($T_{JT} = 5,513.00$, $z = 3.79$, $r = .27$, $p < .001$) and participants with more than one CA experience and one CA experience ($T_{JT} = 3,921.00$, $z = 2.19$, $r = .27$, $p = .04$), but not between participants with no or one CA experience ($T_{JT} = 1,783.50$, $z = 1.13$, $r = .11$, $p = .39$).

A Goodman and Kruskal gamma test showed a positive, moderate association between number of CA experiences and the presence of a distressing paranoia experience (score of ≥ 1 on distress and/or impact) $G = .39$, $p < .001$.

3.5.1.4. Childhood adversity and voice-hearing: A Jonckheere-Terpstra test showed that there was a significant overall difference in severity of voice-hearing between CA groups, with higher median scores on voice-hearing experiences as the number of childhood exposures increased, $T_{JT} = 10,194.50$, $z = 2.13$, $r = .14$, $p < .03$. However, when using the adjusted p-value of 0.0125 to account for multiple testing (see 2.7.3), the association between CA and voice-hearing was non-significant.

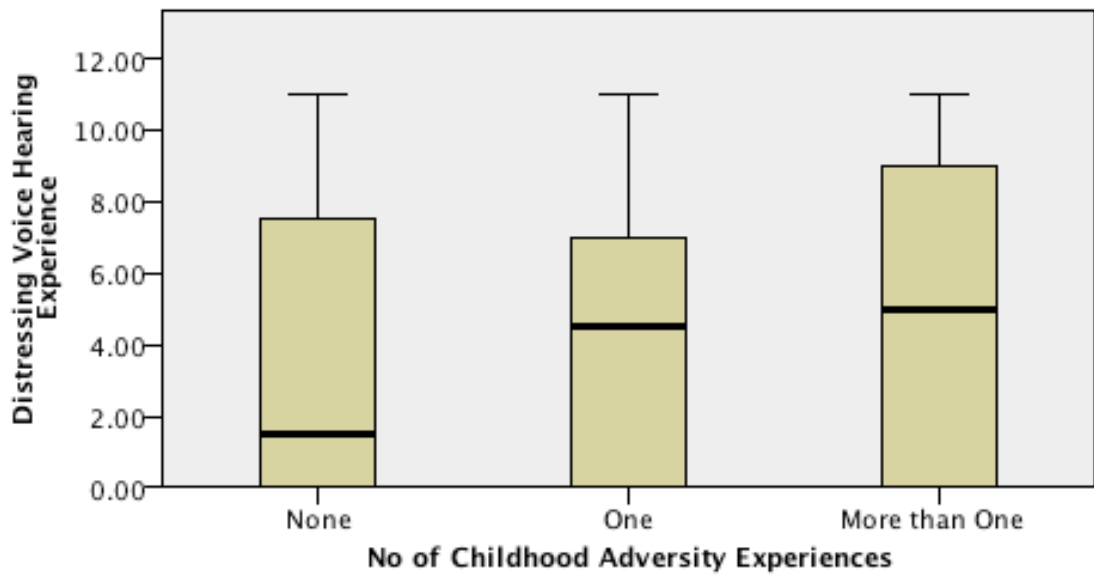


Figure 2: Median scores for severity of voice-hearing and childhood adversity

Pairwise comparisons with adjusted p-values revealed no significant pairwise differences between CA groups; such that there were no differences between participants with no CA or one CA experience, $T_{JT} = 1,749.50$, $z = .90$, $r = .08$, $p = .55$; no CA or more than one CA experience $T_{JT} = 4,879.00$, $z = 2.03$, $r = .15$, $p = .06$; and one CA or more than one CA experience, $T_{JT} = 3,566.00$, $z = 1.04$, $r = .08$, $p = .45$.

When examining the association between the number of CA experiences and the presence of distressing voice-hearing (score of ≥ 1 on either distress or impact), a Goodman and Kruskal gamma test revealed no significant associations, $G = .18$, $p = .11$.

3.5.1.5. Childhood adversity and visual experiences: A Jonckheere-Terpstra test revealed there were no significant differences in severity of visual experiences between CA groups although there was a trend of higher median scores on distressing visual experiences as the number of childhood exposures increased, $T_{JT} = 9,972.50$, $z = 1.80$, $r = .12$, $p = .07$. Similarly, when assessing the association between the number of CA exposures and the presence of a distressing visual experiences (score of ≥ 1 on either distress or impact), the Goodman and Kruskal gamma revealed no significant association, $G = .18$, $p = .11$.

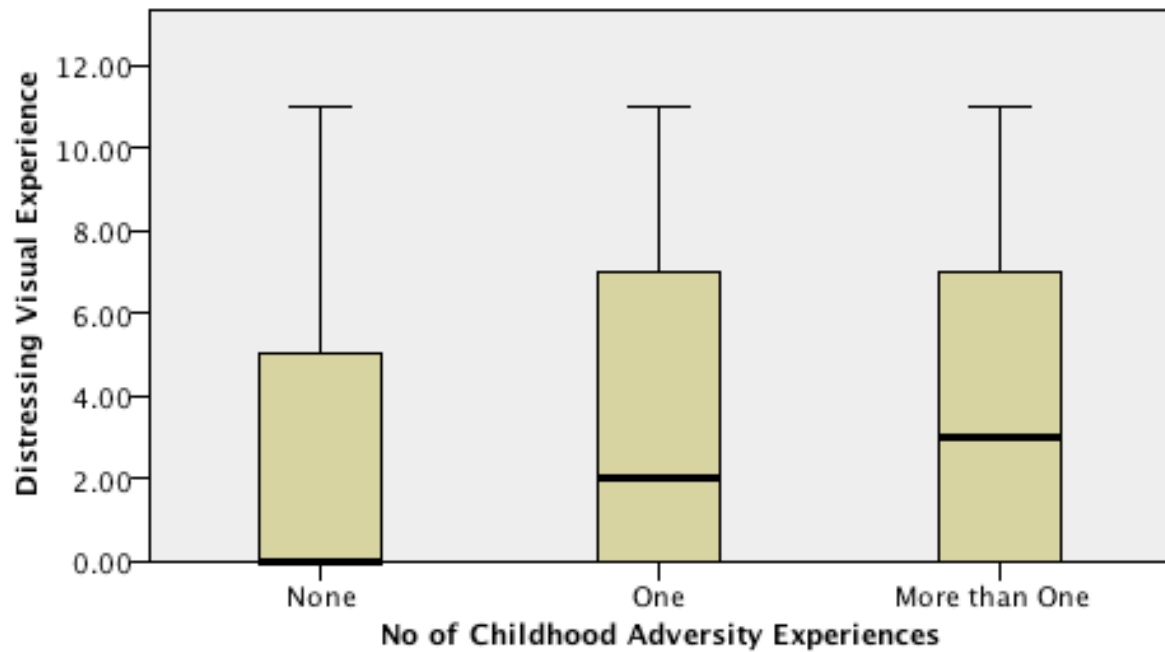


Figure 3: Median scores for severity of visual experiences and childhood adversity

3.5.1.6. *Childhood adversity and affect*: A Jonckheere-Terpstra test showed that there was a significant difference between the number of CA exposures and affect as measured by the SDQ-E, with a trend of higher median scores on affect as the number of childhood exposures increased, $T_{JT} = 11,477.00$, $z = 4.12$, $r = .26$, $p < .001$.



Figure 4: Median scores for negative affect and childhood adversity

Pairwise comparisons with adjusted p-values revealed there were no significant differences in affect between participants with no CA or one CA, $T_{JT} = 1,742.00$, $z = .66$, $r = .06$, $p = .76$. There were however significant differences in affect between participants with no CA and more than one CA experience, $T_{JT} = 5,675.00$ $z = 3.94$, $r = .28$, $p < .001$; and between participants with one CA and more than one CA experiences, $T_{JT} = 4,0600.00$, $z = 2.61$, $r = .19$, $p = .01$.

3.5.2. Research Hypothesis 2: Negative Affect will be Associated with UEs of Paranoia, Voice-Hearing and Visual Experiences.

A Spearman's Rank Order Correlation test was employed to consider the relationship between affect (0-10) and severity of each of the UEs (0-11). The correlations revealed that affect was positively and significantly related to each of the UEs, with medium effect sizes. Levels of negative affect increased as severity of the UE increased.

Table 8: Spearman's Rank Order Correlation of Affect and Severity of UEs

Variable (0-11)	N	r_s	p-value
Severity of paranoia	244	.43	<.001*
Severity of voice-hearing	244	.44	<.001*
Severity of visual experiences	244	.33	<.001*

Mann-Whitney-U tests were then employed to assess the relationship between the presence of a distressing UE (score of ≥ 1 on either distress or impact) and affect. As shown in Table 9, the presence of a distressing UE was significantly associated with higher median scores of negative affect.

Table 9: Mann-Whitney-U Tests of Presence of Distressing Unusual Experiences and Affect

Variable	U	N	Median SDQ-E Score	Z-score	r^5	p-value
Paranoia	3957.50	Absence: 97 Presence: 147	Absence: 5 Presence: 7	-5.93	-.38	<.001*
Voice-Hearing	3757.00	Absence: 99 Presence: 145	Absence: 5 Presence: 7	-6.37	-.41	<.001*
Visual	4666.50	Absence: 125 Presence: 119	Absence: 6 Presence: 7	-5.07	-.32	<.001*

3.5.3. Research Hypothesis 3: Negative Affect will Mediate the Relationship between Childhood Adversity and Presence of Distressing Paranoia but not Hearing Voices or Visual Experiences.

3.5.3.1. *Paranoia*: As confirmed in tests for research hypothesis one and two; CA was associated with the presence of distressing paranoia, $G=.39$, $p<.001$; CA was associated with affect, $T_{JT} = 11,477.00$, $z = 4.12$, $r = .26$, $p<.001$, and affect was associated with the presence of distressing paranoia, $U=3957.50$, $Z= -5.93$, $r=-.38$, $p<.001$. Correspondingly, a series of binary logistic regressions were employed to test for mediating relationships.

3.5.3.2. Considerations for Logistic Regression:

- *Variables*: binary logistic regression permits for the prediction of group membership by using a dichotomous dependent variable (e.g. absence or presence of distressing experience) and a combination of continuous

⁵ Effect size was calculated by z-score divided by the \sqrt{N} . N referred to the total participant number for a given comparison (Field, 2013).

(affect, age) or categorical predictor (CA, gender, clinical service) variables.

- *Normality*: binary logistic regression does not require predictor variables to be normally distributed, linearly related to the dependent variable or have equal variance within groups (Tabachnick & Fidell, 2014).
- *Ratio of cases to variables*: based on the discussion in the Method chapter (see 2.8.3.2), the analyses had sufficient cases for the analysis.
- *Linearity of the logit*: a regression analysis revealed no significant interactions between the continuous predictors and the log of itself, affect, $\beta = 2.98$, $p = .18$, and age, $\beta = .94$, $p = .94$ (Field, 2013).
- *Absence of multicollinearity*: as there is no formal way for assessing multicollinearity in logistic regression, violations of multicollinearity were assessed for each of the regressions using a linear regressions procedure so that collinearity statistics could be obtained. Tolerance values $< .1$ are indicative of high correlations in the model (Field, 2013). Tolerance values for the predictors ranged from .62-.92. Variance inflation factor (VIF) scores of > 10 are suggestive of violations to multicollinearity (Field, 2013), VIF scores for the predictors ranged from 1.08-1.60.
- *Independence of errors*: binary logistic regressions assume that cases are independent of each other, this assumption was met as the study employed a between-subjects approach.

3.5.3.3. *Paranoia, CA and affect mediation analyses*: Binary logistic regression showed that experiencing 'more than one' CA significantly predicted the presence of distressing paranoia experience with $\beta = 2.92$, 95% CI 1.57-5.43, $p = .001$. Adding affect to the model as a predictor suggested partial mediation as CA had a slightly reduced odds ratio of $\beta = 2.24$, 95% CI 1.15-4.37, $p = .02$, and affect was a significant predictor, $\beta = 1.40$, 95% CI 1.23-1.58, $p < .001$. The associations of CA and affect with paranoia both persisted irrespective of controlling for clinical service, age and gender, with only clinical service showing a significant association with paranoia (Table 10). This is consistent with earlier analyses (see Table 6) which demonstrated significant differences across clinical groups, with tier 3 and 4 having higher median scores for severity of paranoia experiences.

To check that results were consistent across both presence and severity scores for paranoia, a parallel secondary series of multiple regression analyses were carried out. As the assumptions of normality, linearity and homoscedasticity of residuals were violated (Field, 2013; Pallant, 2013), caution is required in interpreting these results in isolation, but findings supported the partial mediation effect. When CA was considered alone with severity of paranoia experiences, $\beta=.25$, $p<.001$; adding affect to the model as a predictor, CA had a slightly reduced effect of $\beta=.15$, $p=.01$, and affect was a significant predictor, $\beta=.38$, $p<.001$. The associations of CA ($\beta=.16$, $p=.01$) and affect ($\beta=.30$, $p<.001$) with paranoia persisted irrespective of controlling for clinical service, age and gender, similarly clinical service was also a significant predictor ($\beta=.19$, $p<.001$).

Table 10: The Role of Affect in Mediating the Relationship between Childhood Adversity and Distressing Paranoia Experiences with Demographic Factors.

Variable	β	p-value	95% CI for β	
			Lower	Upper
Clinical Service-Tier 2 ⁶		.003		
Clinical Service-Tier 4	2.52	.13	.76	8.35
Clinical Service-Tier 3	4.50	<.001	1.85	10.96
Age	.98	.37	.82	1.18
Gender	.84		.44	1.64
CA- None		.03		
CA- One	1.33	.51	.57	3.10
CA- More than one	2.59	.01	1.24	5.41
SDQ-E	1.32	<.001	1.15	1.52

3.5.3.4. *Voice-hearing*: In research hypothesis one the Jonckheere-Terpstra test did reveal a small but significant difference in median of voice-hearing severity between the three CA groups, $T_{JT} = 10,194.50$, $z = 2.13$, $r = .14$, $p<.03$, however,

⁶ A β was not computed for Clinical Service-Tier 2 as this group was used as the baseline group.

when employing the adjusted p-value of .0125 for multiple testing (see 2.7.3), the association between CA and voice-hearing was non-significant. Pairwise comparisons did not reveal significant differences in group by group comparisons. A Goodman and Kruskal gamma test demonstrated no significant association between the presence of distressing voice-hearing and the number of CA experiences, $G=.18$, $p=.11$, indicating that there was no relationship for which the mediating role of affect could be investigated.

As the non-adjusted p-value indicated an overall significant difference, the visual data from the Jonckheere-Terpstra test was consulted (see 3.5.1.4). On inspection of the visual data, it seemed that severity of voice-hearing was different for 'none' compared to 'one' and 'more than one' CA experiences. Therefore, a binary category for CA was created (none vs. one or more) to further evaluate the relationship between CA and distressing voice-hearing. A binary logistic regression showed that CA did not predict the presence of distressing voice-hearing ($\beta= 1.65$, $p=.08$). Although the data did not meet all the assumptions, a linear regression was employed as a sensitivity check to test that any significant association with CA was not lost as result of evaluating voice-hearing as a binary variable. The linear regression supported the finding that CA did not predict voice-hearing ($\beta=.12$, $p=.06$), as such mediation analyses were not conducted.

3.5.3.5. Visual experiences: Research hypothesis one found there was no significant association between the presence of distressing visual experiences, $G=.18$, $p=.11$, or severity of visual experiences and CA groups, $T_{JT} = 9,972.50$, $z = 1.80$, $r = .12$, $p=.07$; indicating that there was no relationship for which the mediating role of affect could be investigated, as such no mediational analyses were conducted.

3.6. Secondary Hypotheses

3.6. Research Hypothesis 4: Schemas will mediate the relationship between childhood adversity and paranoia but not hearing voices or visual experiences.

In this sub-sample (tiers 2 & 3; $n=199$), Jonckheere-Terpstra tests showed significant differences between CA groups in negative self, ($T_{JT} = 7,540.50$, $z = 2.99$, $r = .21$, $p = .003$) but not in positive self, $T_{JT} = 6,023.00$, $z = -.53$, $r = -.04$, $p = .60$, positive others, $T_{JT} = 6,221.50$, $z = -.07$, $p = .95$, or negative others, $T_{JT} = 6,971.00$, $z = 1.66$, $r = .12$, $p = .10$. Pairwise comparisons with adjusted p-values revealed no significant differences in negative self-beliefs between the no CA and one CA experience groups, ($T_{JT} = 1,375.00$, $z = .42$, $r = .03$, $p = 1.00$), or the one CA and more than one CA experience groups, $T_{JT} = 2,468.50$, $z = 1.97$, $r = .14$, $p = .07$, but there were significant differences in negative self-beliefs between the no CA experience and the more than one CA experience groups, $T_{JT} = 3,697.00$, $z = 2.92$, $r = .20$, $p = .005$.

Mann-Whitney U tests (*Table 11*) indicated significant relationships with the presence of distressing paranoia experiences and negative self, positive other and positive self-beliefs. A Goodman and Kruskal gamma test confirmed that the association between the presence of distressing paranoia experiences and the number of CA exposures was present in this subsample, $G = .39$, $p < .001$. Based on these primary associations, mediational analyses were employed to evaluate the influence of negative self-beliefs on the association between CA and the presence of distressing paranoia experiences.

Table 11: Mann-Whitney U Tests of Paranoia with Schemas

Variable	U	N	Median	Z-score	r	p-value
Positive Self	3913.50	Absence: 84 Presence: 117	Absence: 14 Presence: 11	-2.46	-.17	.01
Negative Self	3289.50	Absence: 84 Presence: 117	Absence: 3 Presence: 7	4.02	-.28	<.001
Positive Other	3744.50	Absence: 84 Presence: 117	Absence: 13 Presence: 11	-2.88	-.20	.004
Negative Other	4363.00	Absence: 84 Presence: 117	Absence: 8 Presence: 9	-1.36	-.10	.18

3.6.2. Considerations for Logistic Regression:

- Ratio of cases to variables: there were sufficient cases for the analysis (see 2.8.3.2).
- *Linearity of the logit*: a regression analysis revealed no significant interactions between the continuous predictors and the log of itself, negative self, $\beta=1.18$, $p=.13$, and age, $\beta=1.14$, $p=.88$ (Field, 2013).
- Absence of multicollinearity: tolerance values for the predictors ranged from .49-.03, and VIF scores for the predictors ranged from 1.07-2.03 demonstrating there were no violations of multicollinearity (Field, 2013).

3.6.3. *Paranoia, CA, and schema mediation analyses*: a binary logistic regression showed that experiencing 'more than one' CA significantly predicted the presence of distressing paranoia experiences with $\beta= 3.01$, 95% CI 1.54-5.89, $p=.001$.

Adding negative self-beliefs to the model as a predictor suggested partial mediation as CA had a slightly reduced odds ratio of $\beta= 2.44$, 95% CI 1.21- 4.89, $p=.01$, and negative self was a significant predictor, $\beta= 1.10$, 95% CI 1.04-1.16, $p=.001$. The association of CA with paranoia persisted irrespective of controlling for clinical service, age and gender ($\beta= 3.20$ $p=.003$), but the association with negative self-beliefs did not ($\beta= 1.26$, $p=.42$). Clinical service showed a significant

association with paranoia ($\beta = 2.11$, $p = .001$; *Table 12*); this is in accordance with earlier analyses (see 3.4) which established a significant difference across clinical groups, with tier 3 services having higher median scores for severity of paranoia.

To check that results were consistent across both presence and severity scores for paranoia, a parallel secondary series of multiple regression analyses were carried out. Again, as the assumptions of normality, linearity and homoscedasticity of residuals were violated (Field, 2013; Pallant, 2013), caution is required in interpreting these results in isolation, but findings supported the partial mediation effect, which in this analysis, persisted irrespective of controlling for demographic variables. When CA was considered alone with severity of paranoia experiences, $\beta = .26$, $p < .001$; when appraising the role of negative-self, CA had a slightly reduced effect of $\beta = .18$, $p = .005$, and negative self was a significant predictor, $\beta = .34$, $p < .001$. The associations of CA ($\beta = .21$, $p = .002$) and affect ($\beta = .18$, $p = .02$) with paranoia persisted irrespective of controlling for clinical service, age and gender, similarly clinical service was also a significant predictor, $\beta = .25$, $p < .001$.

Table 12: The Role of Negative-Self in Mediating the Relationship between Childhood Adversity and Distressing Paranoia Experiences with Demographics

Variable	β	p-value	95% CI for β	
			Lower	Upper
Clinical Service	2.11	.001	1.35	3.30
Age	1.02	.84	.85	1.22
Gender	1.18	.63	.59	2.36
CA- None		.01		
CA- One	1.27	.59	.53	3.03
CA- More than one	3.20	.003	1.49	6.85
Negative Self	1.03	.43	.96	1.09

3.6.4. Voice-hearing: As earlier analyses (see 3.5.3.4) showed that CA did not predict presence of voice-hearing or severity of voice-hearing, mediation analyses were not conducted. Mann-Whitney U tests revealed significant differences between the presence of distressing voice-hearing and positive self and negative self-beliefs (*Table 13*).

Table 13: Mann-Whitney U Tests of Voice-Hearing with Schemas

Variable	U	N	Median	Z-score	r	p-value
Positive Self	3719.00	Absence: 84 Presence: 117	Absence: 14 Presence: 10	-2.94	-.21	.003
Negative Self	2529.00	Absence: 84 Presence: 117	Absence: 2 Presence: 9	-5.90	-.41	<.001
Positive Other	4091.50	Absence: 84 Presence: 117	Absence: 13 Presence: 12	-2.03	-.14	.43
Negative Other	3972.00	Absence: 84 Presence: 17	Absence: 7 Presence: 9	-2.32	-.14	.43

3.6.5. *Visual experiences:* As earlier analyses (see 3.5.1.5 & 3.5.3.5) showed no associations of presence or severity of visual experiences with CA, mediation analyses were not conducted. Mann-Whitney U tests revealed significant differences between the presence of visual experiences and all schema subtypes (Table 14).

Table 14: Mann-Whitney U Tests of Visual Experiences with Schemas

Variable	U	N	Median	Z-score	r	p-value
Positive Self	3943.00	Absence: 103 Presence: 98	Absence: 14 Presence: 10	-2.68	-.19	.01
Negative Self	3611.00	Absence: 103 Presence: 98	Absence: 3 Presence: 7	-3.50	-.25	<.001
Positive Other	4158.50	Absence: 103 Presence: 98	Absence: 13 Presence: 12	-2.15	-.15	.03
Negative Other	4003.00	Absence: 103 Presence: 98	Absence: 7 Presence: 9.5	-2.53	-.18	.01

3.7. Research Hypothesis 5: Dissociation will mediate the relationship between CA and hearing voices and visual experiences but not paranoia

In this sub-sample (tier 3; $n=103$) a Jonckheere-Terpstra test showed that distribution of dissociative experiences was the same across number of CA experiences, $T_{JT} = 1,744.50$, $z=.46$, $r=.05$, $p=.64$, indicating that mediation analyses were not appropriate. Mann-Whitney U tests showed no differences in dissociative experiences according to the absence ($Md=4.01$) or presence ($Md=4.86$) of distressing paranoia experiences ($U=749.00$, $z= -1.55$, $r=-.15$, $p=.12$). However, there were significant differences according to the absence ($Md=3.31$) and presence ($Md=5.07$) of distressing voice-hearing experiences ($U=409.00$, $z= -3.09$, $r=-.30$, $p=.002$) and the absence ($Md=4.10$) and presence ($Md=5.07$) of distressing visual experiences ($U=853.00$, $z= -2.67$, $r=-.22$, $p=.003$). These associations appear to be independent of CA experiences.

4. DISCUSSION

4.1. Overview

This thesis aimed to investigate the psychological processes underpinning the association of childhood adversity (CA) with childhood unusual experiences (UEs). Research in adults has suggested different pathways, therefore, different targets of psychological therapy have been suggested for paranoia and voice-hearing. Specifically, negative affect and negative beliefs about self and others mediate the association of CA with paranoia, while dissociative processes appear to mediate the association of CA with voice-hearing. Previous research in childhood and adolescence has tended to investigate UEs as a homogenous group. Testing the applicability of specific experience models of psychosis in adults to childhood UEs will inform the development of recommended therapies to reduce current distress and promote mental wellbeing for young people with UEs. Study hypotheses considered the mediating roles of negative affect, negative beliefs about self and others, and dissociative experience, in the association of CA with childhood UEs of paranoia, voice-hearing, and visual experiences. Support was found for a partial mediating role of negative affect and negative beliefs about the self, but not others, and the absence of a role for dissociation in the association of CA with paranoia. Contrary to hypotheses, and unlike in adults, CA was not associated with voice-hearing, visual experiences, or dissociation.

This section will begin with a discussion of the findings by research hypothesis, in the context of existing child and adult literature. Strengths and limitations of the current study, and implications of the findings for future research and clinical practice will be discussed, followed by a personal reflection from the researcher and an overall conclusion.

4.2. Discussion of Findings

4.2.1. Participant Demographics and Variables of Interest

Each variable of interest (severity and presence of UEs, CA, negative affect, positive and negative self and other- evaluations, and dissociative experiences) will be discussed in turn in the context of participant demographics (age, gender, ethnicity and clinical service).

4.2.1.1. Unusual experiences: In this community CAMHS and inpatient sample, 59.8% reported a distressing paranoia experience, 59.0% reported a distressing voice-hearing experience and 48.6% reported a distressing visual experience in the last two weeks. This was higher than a general population sample of 12-19-year-olds in Ireland, where 13.1% reported paranoid thoughts, 13.7% reported auditory hallucinations and 10.4% reported visual hallucinations (Dolphin et al., 2015), as measured by the same three self-report items used in the present study. Prevalence rates in this study were comparable to, although slightly higher than, another Community CAMHS sample in Ireland, where 46% reported psychotic experiences as measured by a structured clinical interview (Kelleher et al., 2014). In the current study sample, young people who accessed mental health services for more severe, complex, and persistent emotional and behavioural difficulties (tier 3 & 4) were more likely to report greater severity of experience. This finding was consistent with the findings that UEs are related to emotional and behavioural difficulties (Downs et al., 2013; Lancefield et al., 2016) and that psychotic experiences have been linked to having multiple formal psychiatric diagnoses (Kelleher et al., 2012; Kelleher et al., 2014). Older participants reported greater severity of UEs, consistent with the view that UEs are common in earlier childhood and part of normative development (Laurens et al., 2012), but that prevalence decreases and associations between UEs and associated distress and impact strengthen with increasing age (Kelleher et al., 2012). Female participants reported greater severity in paranoia and voice-hearing experiences, consistent with Yung et al., (2009), although research into gender differences and UEs remains inconclusive (Fonseca-Pedrerre et al., 2011).

Higher rates of UEs may also derive from the inner-city London location that participants were recruited from, which is characterised by high rates of mental health and social adversity compared to United Kingdom averages (Davenport, 2017; Kirkbride et al., 2006). Low social cohesion and crime victimisation in neighbourhoods have been associated with increased childhood psychotic experiences (Newbury, Arseneault, Caspi, Moffitt, Odgers, & Fisher, 2016).

In this sample, there were no significant differences in severity of UEs according to ethnicity. This differs to studies of adults living in London and Nottingham, where higher prevalence rates have been reported for participants who identified as Black Caribbean or Black African (Morgan et al., 2009). It may be that ethnic variation in UEs prevalence is less apparent in childhood, or in a sample recruited from inner-London only. The current study sample reflected roughly equal proportions of Non- BME (54.6%) and BME (45.4%) participants, consistent with London being the most ethnically diverse city (Office for National Statistics, 2011). Research has found that the incidence of schizophrenia in ethnic minority adults is higher in those areas with smaller BME populations (Boydell et al., 2001). It is hypothesised that there may be increased experiences of racism and alienation in such contexts. It may be that UEs rates are not elevated in BME groups when population proportions are equivalent, as was in this sample. Nevertheless, it is important to note that ethnicity in this sample was collapsed to Non-BME (including white British, Irish and other) and BME (including Black British, Caribbean, African and all Asian), therefore, it is possible that differences in UEs severity across specific ethnic groups may have been masked by using a binary categorisation.

4.2.1.2. Childhood adversity: Over 50% of children and adolescents had experienced more than one CA experience; this was consistent with large-scale surveys showing that exposure to multiple CA was common (Felitti et al., 1998; Kessler et al., 2010). In the current study, females reported more CA experiences, similar to Felitti et al., (1998), as did older participants. There were no differences in the number of CA experiences associated with ethnicity or clinical service.

4.2.1.3. Negative affect: The SDQ-E score was in the 'borderline' range for tier 2 services, and in the 'abnormal' range for tier 3 and 4 services, this was consistent with the SDQ being able to reliably discriminate between children and adolescents in the general population and those accessing mental health services (Goodman, Meltzer, & Bailey, 2003). Older participants and females reported higher levels of emotional difficulties on the SDQ-E, this was in line with adolescent females being more likely to present to mental health services for internalising difficulties and adolescent males being more likely to present with externalising difficulties (Zahn-Waxler, Klimes-Dougan, & Slattery, 2000). There were no differences in levels of affect by ethnic group, consistent with a previous study of Norwegian adolescents (Richter et al., 2011).

4.2.1.4. Positive and negative self and other-evaluations: Younger participants reported more positive-self and positive-other evaluations, and older participants reported more negative-self evaluations. Adolescence is a key period for schema development and changes in self-esteem associated with increasing independence, peer relationships and puberty (Carr, 1999). Females were more likely to report extreme negative-self and other beliefs, and fewer positive self and other beliefs, this in line with females presenting with higher levels of internalising difficulties (Zahn-Waxler et al., 2000). Young people accessing services for more severe, complex and persistent emotional and behavioural difficulties (tier 3) reported more negative-self evaluations, and fewer positive-self and other-evaluations, supporting the hypothesised role of schemas in a range of mental health difficulties (Noone et al., 2015). In this sample, children and adolescents from BME backgrounds reported more positive self- evaluations, suggesting that social-cultural factors may influence young people's self-perceptions, and highlights an interesting area for future research.

4.2.1.5. Dissociative Experiences: The mean total A-DES score was 4.68, which was high, as scores at this level may be associated with a diagnosis of dissociative disorder in adolescence (Armstrong et al., 1997). There were no associations of dissociation with age, nor differences with gender or ethnicity, consistent with previous research, which has not highlighted demographic variation in dissociative experiences (Armstrong et al., 1997).

4.2.2. Research Hypothesis One: Childhood Adversity will be Associated with Unusual Experiences of Paranoia, Voice-Hearing, and Visual Experiences and Affect.

Having more than one CA experience (compared to one, or none) was significantly associated with severity of paranoia and negative affect. CA was only weakly associated with voice-hearing as findings were non-significant when using adjusted p-values, and was not associated with visual experiences.

The association of CA with paranoia is consistent with a small number of studies in young people (Campbell & Morrison, 2007), and supports the extension of the robust associations in adults that showed CA was associated with positive symptoms of psychosis, including paranoia (Read et al., 2005; Trotta et al., 2015; Varese et al., 2012).

In relation to voice-hearing and visual experiences, the findings were not consistent with the hypothesis and appeared to contradict findings from adult studies. These unexpected findings may reflect differences in the applicability of adult models of psychotic experiences to voice-hearing and visual experiences of childhood, and further replication will be needed to determine this. However, it is likely that findings may also be due to the method by which CA was measured in the study. Based on adult literature, experiences of childhood sexual abuse are strongly associated to voice-hearing (Bentall et al., 2012; Hardy et al., 2016), but the present study did not include specific questions about unwanted sexual experiences. Though the Recent Episodic Life Events (Wilkinson et al., 2009) questionnaire included items that assessed the occurrence of any other life event, it is possible that young people may not have endorsed this item as a response to unwanted sexual experiences. Furthermore, it was not possible to determine the prevalence of sexual abuse compared to any other adversity in the current study (due to the use of a frequency variable). Types of adversity should be differentiated in future research. This will require careful ethical consideration as disclosures of abuse can evoke powerful feelings of shame, humiliation, and fears of other reactions (Hershkowitz, Lanes, & Lamb, 2007). Consideration and

planning would need to be given to how a young person would be supported in a research setting, as well as liaison with services and social care.

The finding that more than one CA experience was associated with negative affect is consistent with research that has reported experiences of CA are associated with emotional difficulties commonly related to a diagnosis of depression, anxiety disorders and post-traumatic stress disorder in adulthood (Gilbert et al., 2009; Kessler et al., 2010). This study extends on this finding and suggests that associations between CA and emotional difficulties are present in earlier life.

It is of note that exposure to 'more than one' experience of CA acted as a critical indicator for severity of paranoia and emotional difficulties in childhood and adolescence. This suggests that a single occurrence of adversity may not have particular implications for paranoia, and may be appraised differently. The findings suggest cumulative effects of adversity on the development of paranoia in childhood and adolescence.

4.2.3. Research Hypothesis Two: Negative Affect will be Associated with Unusual Experiences of Paranoia, Voice-Hearing, and Visual Experiences.

As hypothesised, negative affect was associated with severity of paranoia, voice-hearing, and visual experiences, with moderate effect sizes. Moreover, the presence of an experience of distressing paranoia, voice-hearing and visions, was significantly related to higher median scores of negative affect. These findings are consistent with previous studies that have reported that persistent subclinical psychotic symptoms in a child and adolescent population were associated with affective difficulties (Downs et al., 2013; Wigman et al., 2011). Research has shown that most adolescents report their psychotic experiences to be distressing in nature (Kelleher et al., 2015), in response to this distressing experience, it is understandable that young people may then experience negative affect.

The findings are consistent with cognitive models of adult psychosis, that suggest that negative affect has a direct, causal and maintaining role in psychosis, as it precedes, is present during, and occurs after having a psychotic experience (Freeman & Garety, 2003). It is further proposed that negative affect has a bidirectional relationship with UEs, in that negative affect can influence the content and processing of the experience, and in response to their UE, a person may then experience further negative affect. When a person begins to make sense of their experience they are more likely to develop an understanding that is consistent with their emotional experience (Garety et al., 2001). For example, if an individual is experiencing anxiety they will be more likely to appraise their UE as potentially threatening and dangerous, which may then elicit further anxiety. The presence of an UE might also activate secondary appraisals such as 'I'm going crazy', which is likely to contribute to further negative affect.

The findings are consistent with cognitive models of paranoia that have highlighted the role of negative affect as both a causal and maintaining factor. In Trower and Chadwick's (1995) 'bad me' paranoia, both depression (in response to feelings of badness, guilt, deservedness), and anxiety (in response to feelings of threat) have been found to have a direct role. Similarly, persecutory delusions which is a form of paranoia, and refer to beliefs that others deliberately intend harm, have been closely related with both depression and to a greater extent, anxiety (Freeman et al., 2002). It is understood that both anxiety and paranoia hold common themes of perceived threat, and have shared maintenance processes such as attentional biases, avoidance behaviours, and safety behaviours (Freeman et al., 2002; Freeman & Garety, 2014; Wells, 1997). Specifically, worry a psychological component of anxiety, has been reported to be closely related to persecutory delusions (Freeman et al., 2015). Worries are repeated negative thoughts about the different adverse outcomes that are possible (Freeman et al., 2015). Interventions that have targeted worry have reported having a reduction in both worries and persecutory thoughts, as well as improvements in psychological wellbeing in people with persecutory delusions accessing mental health services (Freeman et al., 2015). The findings of the current study suggest that affect focused interventions may be helpful in younger populations with distressing paranoia experiences.

Models of the role of affect are less well developed for voice hearing (Freeman & Garety, 2003), and unaddressed in relation to visual experiences. The findings of this study support further exploration of the potential for negative affect focused interventions to help young people hearing voices and having visual experiences.

4.2.4. Research Hypothesis Three: Negative Affect will Mediate the Relationship between Childhood Adversity, and Paranoia but not Voice-Hearing and Visual Experiences.

The hypothesis was partly supported, as negative affect partially mediated the relationship between having had more than one experience of CA and both the presence and severity of paranoia. When demographic factors were controlled for, the partial mediation remained. There was no association of CA with voice-hearing and visual experiences to mediate. Findings are consistent with the understanding that CA influences paranoia at least partly by giving rise to negative affect (Freeman & Fowler, 2009). The present findings are consistent with adult studies which have reported that anxiety may explain the association between trauma and paranoia; while anxiety independently predicted voice-hearing (Freeman & Fowler, 2009).

In response to CA, individuals may experience increased levels of negative affect (fear of recurrence, sadness that it occurred, sadness about the meaning regarding oneself, the world and the future). This, in turn, may increase the likelihood of the occurrence of an anomalous experience (Garety et al., 2001), and the likelihood of the experience being appraised as threatening. The presence of negative affect may also promote the use of less helpful coping strategies such as avoidance and withdrawal. However, CA also had an association with paranoia in this study that was not accounted for by negative affect. This may reflect an understandable tendency to look out for and appraise experiences as threatening, in response early experiences of CA, irrespective of current emotional experiences. The findings suggest that interventions targeting affect alone may be potentially helpful, but is unlikely to fully address childhood paranoia where this is associated with CA.

4.2.5. Hypothesis Four: Schemas will mediate the relationship between childhood adversity and paranoia but not hearing-voices or visual experiences.

More than one CA exposure was significantly related to more negative self-evaluations, but not others. This is reflective of therapist accounts that there are often connections between negative self-evaluations and early interpersonal adversity in adult work (Fowler, Garety & Kuipers, 1995). Paranoia was significantly related to fewer positive self and other-evaluations and more negative self-evaluations, but unexpectedly, not negative other-evaluations (Anilmis et al., 2015; Gracie et al., 2007; Stowkowy & Addington, 2012). Mediation analyses partially supported the hypothesis, as negative self-evaluations partially mediated the relationship between CA and distressing paranoia experiences. The mediating effect was no longer found when controlling for demographic factors, however, associations with paranoia severity were stronger as the effect remained after controlling for demographic factors.

The findings are consistent with a systematic review that concluded that negative self-evaluations were associated with persecutory delusions in a help-seeking population and paranoid thinking in the general population (Kesting & Lincoln, 2013). Furthermore, findings are consistent with adult general population research which reported anxiety and negative self-evaluations partially mediated the association between CA and paranoia (Fisher et al., 2012). The findings provide preliminary support for the extension of this research to children and adolescents accessing mental health services with UEs.

Based on psychological models of psychosis, it is understood that adverse experience (e.g. victimisation) shapes and strengthens beliefs about oneself and others (e.g. 'I'm vulnerable', 'I'm bad', 'others are bad; Morrison, 2001). In this study, the findings suggest that more than one CA is important in strengthening negative-self beliefs. It is hypothesised the reoccurrence of an adverse experience may further confirm the belief of being vulnerable or bad and activate threat systems (a likely co-occurrence with negative affect). These strengthened negative-self beliefs may then influence attentional biases towards threat from others, and thus the likelihood of occurrence of a paranoia-related UE, and the interpretation of UEs as a potential threat to the self. The role of negative-self in

mediating CA and paranoia may be most pertinent within the 'bad me' subtype of paranoia (Trower & Chadwick, 1995), in which individuals blame themselves for their paranoia experiences. This may be most relevant if individuals believe they had a role to play in their early adverse experience (e.g. 'I aggravated them with my actions' or 'I deserved it'), this appraisal of the trauma may then influence negative-self beliefs (e.g. 'I'm a bad person'), and give rise to future intrusions being appraised as deserved and threatening ('bad me' paranoia). In this sub-sample, adversity was mostly measured in the last year, only one item measured adversity across the life-time. This suggests that young people reporting more than one experience had at least experienced one, if not both experiences of adversity in the last year, indicating that the shaping and strengthening of negative-self beliefs likely occurs soon after the adverse experience. This suggests that the impact of adversity on increasing the likelihood of experiencing paranoia may be reduced if interventions target negative self-evaluations shortly after the adverse experience has occurred. It is possible, by strengthening positive beliefs about oneself following an adverse experience (this may also in turn support positive mood), individuals may be less likely to interpret future intrusions as a threat to their vulnerability or as deserved.

In contrast to other research which has also considered adversity, schematic beliefs, and paranoia, this study did not replicate the role of negative other-evaluations mediating the relationship between trauma/victimisation experiences and paranoia (Anilmis et al., 2015; Gracie et al., 2007). In this sample, negative other-evaluations were similar for both absence and presence of distressing paranoia groups, and this was irrespective of an absence of an association between the number of CA exposures and negative other-evaluations. A possible explanation for this may be that the study was conducted in inner-London neighbourhoods where high levels of youth violence, including knife and gun crime are present (Davenport, 2017). It is likely that the stress of living in a social environment where crime, trouble and danger are overtly present, will contribute to understandable beliefs that others cannot be trusted, others are hostile and others are bad (Ross, Mirowsky, & Pribesh, 2001), as such it might be expected that more negative other-beliefs were present across the board.

Voice-hearing was significantly related to fewer positive self-evaluations and more negative self-evaluations. This is consistent with findings in adults with psychosis (Smith et al., 2006). It is possible for those who hold less positive and more negative views of themselves, that the content of their voices would be more critical and derogatory towards them resulting in higher levels of distress and associated affect. Similarly, if an individual hears voices that are critical and negative towards them, it is likely to influence their own beliefs about themselves.

The findings revealed that distressing visual experiences were significantly related to fewer positive-self and other-evaluations and more negative-self and other-evaluations. From a review of the literature, the relationship between visual experiences and schemas has not been a focus of previous research. Based on anecdotal observations from conducting assessments with young people during the recruitment of the original studies, it may be hypothesised that visual experiences may also contain a threatening theme, as some young people reported that they had seen someone follow them. Content of this type may be influenced by pre-existing beliefs of 'I'm vulnerable', and 'others are bad'. Future research would benefit from investigating the content of visual experiences, as this may inform a more comprehensive understanding as to in what way schemas are implicated in distressing visual experiences.

4.2.6. Hypothesis Five: Dissociation will mediate the relationship between childhood adversity and hearing voices and visual experiences but not paranoia. Neither voice-hearing, visual experiences nor dissociation were associated with CA, so mediation analyses were not conducted. Hypothesis five was not supported. Although the links between CA, dissociative experiences, and voice-hearing have been well replicated in adult clinical and general populations (Longden et al., 2012), the findings of this study did not replicate these relationships. However, consistent with this body of research, dissociative experiences were significantly higher for young people who reported distressing voice-hearing (Pilton et al., 2015) and visual experiences, but not distressing paranoia

There are several possible interpretations for this finding. One interpretation is the association between CA, dissociative experiences, and UEs was underreported, due to the method by which CA was measured in the study. There is a robust association between childhood physical and sexual abuse with voice-hearing (Bentall et al., 2012; Hardy et al., 2012), visual experiences (Shevlin, Murphy, Read, Mallet Adamson, Houston, 2011), and dissociation (Kilcommons & Morrison, 2005; Longden et al., 2012). It is proposed that dissociative experiences may be adopted as a coping strategy during or following adversity. The disconnection from one's environment or oneself may occur as a way coping with the painful feelings associated with living or re-experiencing trauma. Dissociation can destabilise a person's internal and external grounding, such that a person might feel disconnected from their own thoughts, emotions and bodily actions and environment, which may then increase the misattribution of internal mental states as externally generated events in the form of voice-hearing or visual experiences (Kilcommons et al., 2008). It is possible by not directly asking and distinguishing between childhood physical, sexual abuse, and other adversity associations were masked. Previous large scale population-based studies have reported that these specific forms of adversity are common, (19.3%- unwanted sexual experiences, 9.6%-physical abuse; Felitti et al., 1998), thus it possible that participants in this sample may have experienced childhood abuse which was then not explicitly captured by the measure.

Another interpretation of this finding is that dissociative experiences are associated with voice-hearing and visual experiences but this is not in response to adversity. Similarly, to UEs, dissociation is viewed on a continuum, it is proposed that some dissociative-like experiences may form part of normal development, for example, identity confusion and absorption in one's own imagination (Armstrong et al., 1997). It is thought that these dissociative-like experiences lessen as the adolescent transitions to adulthood. On the other end of the continuum, enduring dissociative-like experiences in adolescence may influence how an individual develops a sense of self (Armstrong et al., 1997). It may be that adolescents from this help-seeking population reported dissociative experience as part of normative development and as a way of coping with an ongoing stressor or triggering situation, irrespective of previous experiences of

adversity. Adolescence is a period of life that may give rise to confusion and emotional changes owing to puberty, peer identity (Steingburg & Morris, 2001), and changes in family systems as the adolescent oscillates between wanting independence and still needing to be cared for (Carter & McGoldrick, 1989). It is possible, that in response to these stressors and emotional changes, young people adopt dissociative strategies, thereby increasing the likelihood that anomalous experiences or intrusions will be appraised as distressing, external events. However, given that the median scores for dissociative experiences in this sample ($Md= 5.07$) were equivalent to levels associated with a diagnosis dissociative disorder in adolescence ($M= 4.86$; Armstrong et al., 1997). It is likely that dissociative experiences in this sample did not purely reflect normative development, but rather dissociative experiences were used more frequently as a coping strategy in response to an experience of CA which was not measured in the present study.

4.3. Critical Review of the Study's Methodology

4.3.1. Strengths

Hypotheses were tested in a large sample of young people providing adequate power to reliably detect differences (H1) and associations (H2) of medium size, using adjusted p-values, and ensured that the recommended ratio of cases to variables for the binary logistic regression was also met (H3 & H4). A large sample is also more likely to be representative of the target population. The sample was also recruited across tiered CAMHS teams, this offered an understanding of UEs along a spectrum of children and adolescents accessing services, and of an ethnic mix representative of the population area.

The measures used in this study were completed as part of three original studies, and participants in these studies completed the measures alongside a trained researcher. This ensured that young people understood the content of the questionnaires, thus reducing the potential for misinterpreted responses. As discussed in the introduction chapter, a greater number of UEs are self-reported by questionnaire compared to clinical interviews and caregiver reports (Laurens et al., 2007) thereby potentially giving a greater number of false-positives (Lee et al., 2016). The present study tried to account for this by using UE questions

which have demonstrated good predictive-value with clinical interviews (Kelleher et al., 2011).

All measures were developed or adapted for use with children and adolescents. The SDQ-E (Goodman, 2001), Recent Episodic Life Events (Wilkinson et al., 2007) and A-DES (Armstrong et al., 1997) had demonstrated adequate validity and reliability in a child and adolescent population. The BCSS measure (Fowler et al., 2016) had been validated in an adult population, and proven to be feasible and have a good internal-consistency in a child and adolescent population (Noone et al., 2015). The use of validated measures increased that likelihood that the psychological processes of interest were being investigated by the measures used. The researcher appreciates that the information gathered from these measures is limited to and reflective of our current theoretical understandings (McEvoy & Richards, 2006).

Notably, previous research in a child and adolescent population has tended to investigate UEs as a homogeneous group (De Loore et al., 2008; Harley et al., 2010; Kelleher et al., 2008; Lataster et al., 2006; Schrier et al., 2009), and only a handful of studies have investigated mediating relationships between CA and UEs (Anilmis et al., 2015; Fisher et al., 2013). This study added to existing literature by considering specific experiences of paranoia, voice-hearing, and visual experiences, as well as a range of psychological processes that may be implicated in this relationship. These specific mediating relationships had not previously been examined; therefore, this study contributed novel information to the understanding of paranoia, voice-hearing and visual experiences in a child and adolescent population accessing mental health services. The findings of this study suggest future research developments (*see 4.4.1*), implications for clinical services (*see 4.4.2*) and wider social initiatives (*see 4.4.2.3*).

4.3.2. Limitations

The Recent Episodic Life Events questionnaire (Wilkinson et al., 2009) was used to measure CA in this study, providing information on a broad range of adversity: personal disappointments, dangerous events to self and others involving physical

or mental harm, and permanent loss in the last year. However, the questionnaire did not directly assess experiences of childhood abuse (e.g. physical, emotional, sexual), which, like UEs, may not be reported if not specifically enquired about. It is possible that by not specifically enquiring about childhood abuse, the association between adversity and voice-hearing and potentially visual experiences was not fully captured in this study. Moreover, the measure of CA was then categorised according to the frequency of exposure, potentially losing information. While this was necessary to create a common variable across studies that employed a slightly different form of the measure, future research would benefit from exploring associations between types of adversity and individual experiences, as well as appraisals of the severity of the trauma. Adult research has established associations between emotional abuse with paranoia, and sexual abuse with voice-hearing (Bentall et al., 2012; Hardy et al., 2016), presently it is unknown whether these associations are generalisable to a child and adolescent population. It is important that any future research that assesses childhood abuse considers the ethical nature of a disclosure within the context of a research study. If young people are directly asked about these experiences, it would be imperative they are provided with adequate support either through the research study or have appropriate clinical protocols in place. An alternative way of assessing childhood abuse in a research setting may be to gain ethical approval and consent to access medical or clinical records to review any documentation of reported abuse, although this will again be subject to the limitations (e.g. only documented if reported, rather than specifically asked about).

The UEQ measure assessed UEs in the last two weeks, therefore, it was unknown whether the experience was a current one-off or a persistent experience. Thus, the study was likely to have included both transitory and persistent experiences. The question assessing the presence of an experience had been validated in a child and adolescent population, but follow-up questions in relation to associated distress (how much has it upset you?) and impact (how much has it made things difficult at home or school?) had not been validated with clinical interviews. However, similarly worded questions have been adopted in other studies (Kelleher et al., 2015). Testing hypotheses using categorical

variables (presence vs. absence of UE), was necessary because of the skewed distribution of the data, however, this did result in a loss of information. Findings were generally consistent with parametric sensitivity checks which repeated analyses using severity scores.

While the selection of participants from tiered services (a proxy indicator for the severity of mental health needs) offered an understanding of UEs along a spectrum of children and adolescents accessing services, conclusions around UEs and mental health should be made with caution. The original studies that recruited from tier 2 and 4 services included both young people with and without UEs. The inclusion criteria for the original study that recruited from tier 3 services meant that only young people who reported a distressing and/or impacting UE were included, thus giving a skewed representation young people accessing services. Further research is warranted as clinical service was identified as a significant variable in both mediation analyses. Future research might benefit from comparing to a general population sample, and then specifically testing relationships across the spectrum of severity of UE presentations.

Multiple statistical tests were conducted, raising the likelihood of a type I error. There is a possibility that the null hypothesis may have been rejected, and an effect overestimated (Dancey & Reidy, 2014). The researcher did try to reduce the likelihood of this occurring by calculating power (80-95%) and using adjusted p-values for the Jonckheere-Terpstra test (H1) and Spearman's Rank Order Correlation (H2). Adjusted p-values were calculated based on the number of tests that were conducted. Adjusted p-values were not used for the Mann Whitney U tests or the binary logistic regressions as the number of tests conducted were numerous, and an adjustment based on this calculation may have increased the likelihood of a type II error (Feise, 2002), that is to conclude there was no effect when there was an effect (Dancey & Reidy, 2014). Due to the possibility of a type I error, results should be viewed tentatively.

Furthermore, the cross-sectional nature of the study does not permit for conclusions about the causal direction of relationships, or associations over time. Although some of the findings were consistent with hypothesised causal

relationships, the mediation in this study cannot support causal claims because of its cross-sectional design, and must be viewed tentatively. Mediation in this study was tested using Baron and Kenny's (1986) widely reported four step principles. Field (2013) reported that the approach had been cited over 35,000 times. The researcher used the current approach to mediation as the aims of the study were to test for hypothesised relationships, and binary logistic regression analysis permitted for this and the data met the assumptions for the test (Tabachnick & Fidell, 2013). Additionally, the mediational principles used in this study were in-line with previous studies that had investigated the relationships between adversity, anxiety, schemas and UEs (Freeman & Fowler, 2009; Stowkowy & Addington, 2012). However, the researcher acknowledges that other statistical approaches were available to test for mediation, and future, longitudinal research would benefit from the use of structural equation modelling (SEM; Alavifar, Karimimalayer, & Anuar, 2012; Gunzler, Chen, & Zhang, 2013). SEM is a powerful multivariate confirmatory technique that is used to test a theory or a proposed model in which multiple mediators may be examined (Gunzler, Chen, & Zhang, 2013; Tabachnick & Fidell, 2013). The current study has provided evidence for provisional relationships among variables that warrant further investigation and theory testing, a proposed next step for the research will be discussed in the following section.

4.4. Implications

4.4.1. Directions for Future Research

The findings showed that negative affect and negative-self evaluations partially mediated distressing paranoia. Next steps should consider the combined contributions of these psychological processes in the relationship between CA and distressing and *persistent* paranoia experiences. Research with general population adults has found that anxiety and negative self-evaluations together only partially mediate the relationship between adversity and paranoia, this suggests that other biological, psychological or social factors may be involved in the relationship (Fisher et al., 2012). Consequently, it would be helpful if future research also considered other influences. Existing research in adults has advocated for the role of attachment-styles in mediating the relationship between

CA and UEs, particularly paranoia (Sheinbaum, Kwapil, & Barrantes-Vidal, 2014; Wickman, Sitko, & Bentall, 2014). As discussed in the introduction chapter (see 1.6.2), attachment-styles are very much influenced by early-life experiences and have been linked to future emotional regulation, interpersonal relationships and development of self and other schemas (Putman, 2006). The absence of responsivity or inconsistency of care in childhood and experiences of child abuse are associated with insecure and disorganised attachments (Silver, 2013). In a study of adults with a diagnosis of schizophrenia spectrum disorders, insecure attachment predicted paranoia experiences, and negative self-evaluations partially mediated the relationship between insecure-anxious attachment and paranoia, and fully mediated the relationship between insecure-avoidant attachment and paranoia (Wickman et al., 2015). It is hypothesised, that a disruptive attachment relationship may endorse negative self-schemas of “I’m unlovable” or “I’m vulnerable” and influence threat beliefs of paranoia (Wickman et al., 2015). Research considering the role attachment-styles with distressing UEs in a child and adolescent populations would be fruitful. If attachment-styles were found to be involved, interventions could focus on the inclusion of building and strengthening more secure attachment relationships in childhood and adolescence when schemas about self and others may be more amenable to change.

Another area of investigation for causal influences is the role of social factors. The World Health Organisation (2014) has stated that social inequality such as housing, poverty and low education significantly impact mental health. These social factors often cause families stress and consequently impact both mental and physical health. A large longitudinal, population-based study in Sweden found that social factors of rented accommodation, low socio-economic status, unemployment and receipt of social benefits were associated with a diagnosis of schizophrenia and psychosis in adulthood (Wicks, Hjern, Gunnell, & Lewis, 2005). Furthermore, research in adults have reported that those living in neighbourhoods characterised by danger and crime report higher levels of mistrust and threat which may give rise to paranoia (Ross and Mirowsky, 2001). These studies suggest that research in a child and adolescent population should also study the social context in which distressing experiences develop. Research

in this area would contribute to an evidence-base that promotes the need for public health interventions to support mental wellbeing.

Research using quantitative measures would benefit from a longitudinal design, thus permitting for the investigation of transitory and persistence individual experiences. Preferably, research would consider both protective and risk factors associated with the persistence and distress of UEs and associated mental health difficulties. This may include an assessment of adversity that includes childhood abuse, emotional processes, coping skills, schemas, interpersonal relationships and social factors, and the recruitment from both a general population and help seeking population. A continuum view of UEs suggests the recruitment of participants from the general population may also inform theory. Research that integrates multiple mediators would require the use of a more powerful multivariate technique such as SEM. The relative contribution of multiple mediators would help to inform interventions across levels: wider-social (e.g. access to social resources, diminishing of childhood adversity), familial (e.g. building positive relationships within the system) and individual (e.g. promoting of coping skills to manage affect, strengthen positive views of self).

Finally, qualitative research can offer rich accounts about the content of experiences and ways in which young people make sense of their experience. It would also be worthwhile to analyse personal accounts of distressing and non-distressing experiences, as well as coping strategies, as this may provide valuable insights into ways in which young people relate to their experience. Personal accounts may also contribute to a normalising understanding to such experiences and have the potential to reduce stigma (Welsh & Oates, 2015).

4.4.2. Clinical Implications

The findings of this study also brought forward provisional implications for clinical practice that may warrant further investigation and evaluation. Clinical implications will be considered across different domains, including assessment, intervention and broader societal initiatives.

4.4.2.1. Assessment: The findings demonstrated that a high proportion of young people accessing CAMHS reported CA and distressing UEs. As discussed earlier, it is likely that the prevalence of CA and association with distressing voice-hearing is underreported in this study as participants were not directly asked about childhood abuse (e.g. physical, sexual, emotional). The findings suggest that asking young people about CA and UEs should be part of the assessment process for all young people accessing services. It is likely, that a young person will not spontaneously share this information with professionals if they are not specifically asked about these experiences (Read, Hammersley, & Rudegeair, 2007). Research has found that most service-users accessing mental health services are not asked about childhood abuse at their initial assessment (Lothian & Read, 2002). One of the main reported barriers to asking about childhood abuse and adversity is that professionals fear the question may be too upsetting for clients and that it may trigger a deterioration in mental health (Young, Read, Barker-Collo, & Harrison, 2001). This suggests that staff may benefit from training in how to ask about abuse or other forms of adversity in a sensitive manner, and knowing how to respond therapeutically. Read et al. (2007) recommends asking about abuse when completing a comprehensive psychosocial history. The topic should be addressed using a funnelling technique, so that the client is aware that the topic is approaching. It may also be valuable to ask about positive childhood memories before enquiring about difficult times, as this may offer some grounding to the client. Questions about abuse should enquire about specific examples, as this aids clarity around the meaning of abuse. It would be useful if mandatory safeguarding training also included assessment skills in how to approach the topic and how to ask specific questions about abuse. It is also important that professionals feel able to respond to a disclosure of abuse, as this will promote the confidence of professionals to ask questions in the first place. Professionals need to be aware of the different forms of support available to clients, including those specific to the service and local voluntary sector, it may be sensible for this to be included as part of a staff induction and orientation to the service, with regular refresher training workshops.

4.4.2.2. Interventions: As discussed, the findings of this study in relation to paranoia are consistent with adult cognitive models of psychosis (Garety et al.,

2001, 2007) and individual-experience models of delusions (Freeman et al., 2002; Garety & Freeman, 2013). Therefore, similar cognitive behavioural approaches that target adversity, affect and negative self-beliefs, may be helpful for young people with distressing UEs. However, caution must be taken that adult-orientated Cognitive Behavioral Therapy (CBT) for psychosis are not generalised to a child and adolescent population without careful adaption and evaluation. Further research is required to investigate CBT interventions for distressing UEs in a child and adolescent population. However, early research into the adoption of CBT for UEs suggests that CBT may be potentially beneficial and is feasible to deliver in CAMHS services (Maddox, Jolley, Laurens, Hirsch, Hodgins, 2013). A case series of four children and adolescents, aged 9-14 years showed that CBT was a viable, helpful and an approachable intervention for young people who reported emotional distress and UEs (distress did not directly need to be related to the experience in this study). Therapeutic sessions in this case series included, psychoeducation on emotional experiences, psychoeducation and a normalising approach to UEs, coping skills, and problem-solving skills. Young people had up to 20 sessions of CBT. All participants reported a reduction in emotional difficulties, frequency and impact of UEs. These findings suggest that CBT may be a promising intervention for reducing emotional distress, which was found to be significantly associated with all three UEs in this study.

Adult cognitive models have proposed a move towards the focus of a single-symptom framework and the targeting of certain causal or mediating factors in interventions (e.g. worry, self-esteem; Garety & Freeman et al., 2013). It is theorised that by targeting specific causal or mediating factors, there will be a reduction in associated distress of experience. The findings of the current study provisionally suggest that for young people experiencing distressing paranoia, adapted CBT might consider and target affective processes and the strengthening of positive views about oneself in the context of adversity. Whilst, for young people experiencing distressing voice-hearing and visual experiences it may be useful to target affective processes, dissociative experiences and the strengthening of positive views about oneself, further research is required as to whether this need be in the context of adversity.

Given that there is a strong evidence base for interventions that address systemic factors in a childhood and adolescence (Dummet, 2006), a helpful approach for UEs may be systemic CBT. This formulation approach would incorporate cognitive, affective and behavioural factors in the context of the wider family, social and cultural context, such as attachment relationships, family scripts about distress, and cultural interpretations of experiences. Additionally, a systemic CBT framework would support clinicians to conceptualise UEs within their social context. As discussed earlier, the experience of living in dangerous neighbourhoods may influence feelings of threat, paranoia, and views about others. It is critical that clinicians receive sufficient training in distinguishing between understandable feelings of threat and paranoia in unsafe neighbourhoods and paranoia of a delusional nature as this may improve clinical judgement. Such training, may involve clinicians having a baseline understanding how often a range of threatening experiences may occur in certain populations or contexts (Brown, 2008). For example, it is very common that a person may experience crime victimisation in an urban and poor neighbourhood but less likely that a person is subject to government surveillance (Brown, 2008). An understanding of baseline information may help clinicians to normalise experiences of threat and paranoia in such social contexts. If young people have a normalised approach towards their experience of understandably feeling threatened when walking home in their neighbourhood, it may reduce secondary appraisals of 'I'm going mad' and in turn reduce secondary anxiety.

Another potential intervention for distressing UEs that warrants further investigation is Compassion Focussed Therapy (CFT). The findings of the current study indicated that negative-self evaluations were associated with all three distressing UEs. CFT arose from observations that people with high levels of shame and self-criticism find it hard to be compassionate towards themselves. Often shame and self-criticism are rooted in early experiences of adversity including abuse and bullying, and as such the outside world can be experienced as attacking, and the internal world as self-critical (Gilbert, 2009). Individuals experiencing high levels of shame and self-criticism frequently find it difficult to feel safe in relationships with others and themselves (Gilbert, 2009); and this

sense of unsafety and threat may be symbolised in distressing experiences of paranoia and voice-hearing (Braehler, Gumley, Harper, Wallace, Norrie, & Gilbert, 2012). CFT aims to support a move from the dominance of a threat-affect regulatory system to a contentment, soothing and safeness system. CFT hopes to create feelings of warmth and kindness by using compassionate imagery to recollect times when others were kind and loving towards them, and times of kindness and loving towards oneself. The therapist helps the client to recognise positive attributes and skills, and bring forward alternative thoughts that are kind and helpful (Gilbert, 2009). A warm and compassionate stance has the potential to target negative-self evaluations, which may then in turn reduce associated distress.

Moreover, the findings of the study showed that distressing-voice hearing was associated with high levels of negative affect and negative-self evaluations. These findings suggest that another valuable intervention for young people might be the Hearing Voices Network (HVN). The HVN is a social movement in which experts by experiences work in partnership with experts by profession to strengthen recovery and coping frameworks (Corstens, Longden, McCarthy-Jones, Waddingham, & Thomas, 2014). Hearing voices groups are available in a range of settings including CAMHS, therefore professionals should be aware of local groups that young people could attend. Some of the guiding principles of the HVN is to encourage voice-hearers to take ownership of their experience and to make sense of their experience in a way that is fitting for them. The HVN respects that young people may draw on a variety of explanations to help make sense of their experiences (Corstens et al., 2014). The groups provide a safe space for exploration and ways of relating to their experience that empowers them to live a full and rich life. A review of hearing voices groups found that clients most valued sharing a non-judgemental space, listening to other stories, and an opportunity to learn and share coping skills (Ruddle, Mason, & Wykes, 2011). These therapeutic factors are well documented as benefits of group therapy that foster recovery (Yalom, 1995).

4.4.2.3. *Broader societal initiatives:* The study found that exposure to more than one CA was associated with distressing paranoia experiences, higher levels of

negative affect and more extreme negative-views of self. This adds to existing research (Felitti et al., 1998; Gilbert et al., 2009; Kessler et al., 2010; Read & Bentall, 2012) that has demonstrated the need for wider initiatives to tackle CA in society. The researcher acknowledges that the current study did not examine specific types of adversity, however, based on previous research useful initiatives may include reducing poverty, increasing access to resources, multi-system family therapy, improvements in the foster care system and anti-bullying campaigns in school (Kessler et al., 2010).

Moreover, broader societal implications in the form of reducing the stigma associated to UEs and mental health more broadly for children and young people are required. Recent initiatives have included the introduction of mental health in Personal Social Health Education (PSHE) lessons and guidance for teaching. However, PSHE forms part of the non-statutory curriculum, therefore schools are not obligated to discuss mental health as part of the national curriculum (Parkin, 2016). Raising awareness of mental health in schools would help to reduce stigma and improve attitudes to mental health difficulties. It would be important that these initiatives are in the context of a broader psychosocial approach (an understandable reaction to life experiences), as biogenetic explanations of mental health have been associated to fear and social distance (Read, Haslam, Sayce, & Davies, 2006). School-based initiatives, which are communicated to parents and carers, may also contribute to fostering a position where talking about one's mental health is actively encouraged. Openly talking about difficult emotions and UEs would be valuable in informing children and young people that they are not alone in their experiences and may potentially reduce associated distress.

4.5. Researcher Reflections

I was thankful for the opportunity to combine my learning at UEL with research interests that I had actively been involved in prior to training. Having worked with both children and adolescents who reported UEs and adults with a diagnosis of psychosis; I was keen to continue to contribute to an area of research that furthered our understanding of distressing UEs and had implications for supporting young people's mental health. By conducting research in this area, I

hope that clinical psychology can contribute to policies that prevent distress and develop therapeutic interventions that support young people to cope with distress.

I found this process to be a valuable learning experience, in which I could strengthen my skills in literature searching, statistical analysis and academic writing. During this process, I reflected on the strengths and limitations of quantitative research. I recognised that by using a quantitative approach I was unable to gain detailed personal accounts of how young people made sense of their experiences, how they lived with their experience, or gain an understanding of when young people were more or less distressed by their experience. On the other hand, a quantitative approach enabled for many young people's experiences to be included, allowing the drawing of general conclusions about associations. I was also able to contribute to an extended understanding of distressing UEs within this population group, as both social (e.g. adversity) and individual (e.g. negative affect, schemas, dissociative) causes and mediators were incorporated in the study. By doing so, it identified many directions for future research and clinical implications for this population group.

Moreover, I reflected on the decision to use a secondary data analysis design and the ethical issues it posed. When considering the research aims and hypotheses for the study, I was mindful that I wanted to contribute to the understanding of UEs in childhood and adolescence whilst also staying true to the consent of the original studies. Furthermore, I was attentive to how the secondary data were managed. I discussed with the Chief Investigator of the original studies how we would ensure the data were anonymous (e.g. removal of original ID) and how the data included were not excessive and were limited to data relevant to the specific hypotheses (Tripathy, 2013). It was important that these issues around anonymisation and appropriateness were held in mind throughout the study, as I was conscious that young people had not directly consented to the current study. There were also ethical advantages in using a secondary data analysis design such that young people accessing CAMHS were not unnecessarily asked to recomplete measures on sensitive issues of childhood adversity (Tripathy, 2013). The use of a secondary data analysis design did however mean I was restricted to the assumptions and method of the three

original studies. The three original studies assumed a cognitive and individualistic focus rather than a social and systems based approach. Whilst, a cognitive approach is relevant and warranted given that there is an evidence-base for cognitive approaches in adults with psychosis; I am aware that research would also benefit from considering the social and relational context in which UEs are understood, developed, and maintained in.

Lastly, completing this thesis has encouraged me to reflect on my own clinical practice, especially in relation to the questions that I ask, during an assessment. Going forward, I plan to continue to develop my own confidence in talking about adversity with service-users through supervision.

4.6. Conclusion

Recently, cognitive models for psychosis have moved towards focusing on different types of psychotic experiences, as it is understood that different psychological processes may be implicated. Therefore, this study investigated specific associations between CA and distressing paranoia, voice-hearing, and visual experiences, and considered the role of affect, schemas and dissociative experiences as mediating components within this association. The findings of this study supported the theory that different psychological processes may be implicated. Consistent with adult studies, negative affect and negative-self evaluations were found to partially mediate the relationship between CA and paranoia. This suggests that interventions which focus on reducing negative affect and promoting positive-self evaluations may support children and adolescents presenting with distressing paranoia and previous experiences of CA.

This study did not replicate the finding that CA is associated with voice-hearing, visual experiences or dissociative experiences, it is possible that this relationship was not replicated as participants were not directly asked about childhood abuse, thus CA may have been underreported. Future research should include a measure of emotional, physical and sexual abuse, careful ethical consideration would need to be given as to how this would be assessed in a research setting.

The findings did, however, suggest that negative affect, negative-self and dissociative experiences were independently associated with voice-hearing and visual experiences, and that these may be important psychological processes to consider when working with young people. Few studies have investigated visual experiences in either adult or child and adolescent populations, an interesting area of future research may be the exploration of the content of visual experiences and beliefs about oneself and others.

This study has provided provisional support that adult cognitive models of UEs may be applicable to children and adolescent, suggesting that systemic orientated CBT may be a helpful intervention for young people. Other promising interventions may also include CFT which aims to support individuals to move from a threat-affect system to a soothing and safeness system by promoting kindness and compassion to oneself. In addition to, hearing-voices groups which provide collective support and a safe place to make sense of one's experiences. Research into UEs with distress in a child and adolescent population is in its infancy, much of our understanding has derived from psychological models in adults. This is a promising area of research that aims to reduce distress and support young people's mental wellbeing, which merits further investigation.

5. REFERENCES

- Alavifar, A., Karimimalayer, M., & Anuar, M. K. (2012). Structural equation modeling vs multiple regression. *Engineering Science and Technology: An International Journal*, 2(2), 326-329.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: American Psychiatric Association.
- Ames, C. S., Jolley, S., Laurens, K. R., Maddox, L., Corrigall, R., Browning, S., ... & Kuipers, E. (2014). Modelling psychosocial influences on the distress and impairment caused by psychotic-like experiences in children and adolescents. *European Child & Adolescent Psychiatry*, 23(8), 715-722. <https://doi.org/10.1007/s00787-013-0500-0>
- Anilmis, J. V., Stewart, C. S., Roddy, S., Hassanali, N., Muccio, F., Browning, S., ... & Jolley, S. (2015). Understanding the relationship between schematic beliefs, bullying, and unusual experiences in 8–14year olds. *European Psychiatry*, 30(8), 920-923. <https://doi.org/10.1016/j.eurpsy.2015.08.008>
- Armstrong, J. G., Putnam, F. W., Carlson, E. B., Libero, D. Z., & Smith, S. R. (1997). Development and validation of a measure of adolescent dissociation: The Adolescent Dissociative Experiences Scale. *The Journal of Nervous and Mental Disease*, 185(8), 491-497.
- Arseneault, L., Cannon, M., Fisher, H. L., Polanczyk, G., Moffitt, T. E., & Caspi, A. (2011). Childhood trauma and children's emerging psychotic symptoms: a genetically sensitive longitudinal cohort study. *American Journal of Psychiatry*, 168(1), 65-72. <https://doi.org/10.1176/appi.ajp.2010.10040567>.

- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173–1182.
- Bartels-Velthuis, A. A., van de Willige, G., Jenner, J. A., Wiersma, D., & van Os, J. (2012). Auditory hallucinations in childhood: Associations with adversity and delusional ideation. *Psychological Medicine*, 42(3), 583–593.
<https://doi.org/10.1017/S0033291711001590>
- Baumeister, D., Sedgwick, O., Howes, O., & Peters, E. (2017). Auditory verbal hallucinations and continuum models of psychosis: A systematic review of the healthy voice-hearer literature. *Clinical Psychology Review*, 51, 125–141. <https://doi.org/10.1016/j.cpr.2016.10.010>
- Beavan, V., Read, J., & Cartwright, C. (2011). The prevalence of voice-hearers in the general population: A literature review. *Journal of Mental Health*, 20(3), 281–292. <https://doi.org/10.3109/09638237.2011.562262>
- Beck, J. S. (2011). *Cognitive Behavior Therapy: Basics and Beyond* (2nd ed). London: The Guildford Press.
- Bentall, R. (2006). Madness explained: Why we must reject the Kraepelinian paradigm and replace it with a ‘complaint-orientated’ approach to understanding mental illness. *Medical Hypotheses*, 66(2), 220–233.
<https://doi.org/10.1016/j.mehy.2005.09.026>
- Bentall, R. P., de Sousa, P., Varese, F., Wickham, S., Sitko, K., Haarmans, M., & Read, J. (2014). From adversity to psychosis: Pathways and mechanisms from specific adversities to specific symptoms. *Social Psychiatry and Psychiatric Epidemiology*, 49(7), 1011–1022.
<https://doi.org/10.1007/s00127-014-0914-0>

- Bentall, R. P., Rowse, G., Shryane, N., Kinderman, P., Howard, R., Blackwood, N., ... & Corcoran, R. (2009). The cognitive and affective structure of paranoid delusions: A transdiagnostic investigation of patients with schizophrenia spectrum disorders and depression. *Archives of General Psychiatry*, 66(3), 236-247.
<https://doi.org/10.1001/archgenpsychiatry.2009.1>.
- Bentall, R. P., Wickham, S., Shevlin, M., & Varese, F. (2012). Do specific early-life adversities lead to specific symptoms of psychosis? A study from the 2007 the Adult Psychiatric Morbidity Survey. *Schizophrenia Bulletin*, 38(4), 734-740. <https://doi.org/10.1093/schbul/sbs049>
- Birchwood, M., Gilbert, P., Gilbert, J., Trower, P., Meaden, A., Hay, J., ... & Miles, J. N.V. (2004). Interpersonal and role-related schema influence the relationship with the dominant 'voice' in schizophrenia: A comparison of three models. *Psychological Medicine*, 34, 1571-1580.
<https://doi.org/10.1017/S0033291704002636>
- Booth, A., Sutton, A., & Papaioannou, D. (2016). *Systematic approaches to a successful literature review* (2nd ed.). London: SAGE Publications Ltd.
- Boydell, J., van Os, J., McKenzie, K., Allardyce, J., Goel, R., McCreadie, R. G., & Murray, R. M. (2001). Incidence of schizophrenia in ethnic minorities in London: ecological study into interactions with environment. *British Medical Journal*, 323, 1336-1340.
<https://doi.org/10.1136/bmj.323.7325.1336>
- Boyle, M. (2003). The dangers of vulnerability. *Clinical Psychology*, 24, 27-30.
- Boyle, M. (2011). Making the World Go Away. In M. Rapley., J. Moncrieff., & J. Dillon (Eds.) *De-medicalizing Misery: Psychiatry, Psychology and The Human Condition* (pp 27-43). London: Palgrave Macmillian.
- Brown, S. A. (2008). The reality of persecutory beliefs: base rate information for clinicians. *Ethical Human Psychology and Psychiatry*, 10(3), 163-178.
<https://doi.org/10.1891/1559-4343.10.3.163>

- Braehler, C., Gumley, A., Harper, J., Wallace, S., Norrie, J., & Gilbert, P. (2013). Exploring change processes in compassion focused therapy in psychosis: Results of a feasibility randomized controlled trial. *British Journal of Clinical Psychology*, 52(2), 199-214. <https://doi.org/10.1111/bjc.12009>
- Campbell, M. L., & Morrison, A. P. (2007). The relationship between bullying, psychotic-like experiences and appraisals in 14–16-year olds. *Behaviour Research and Therapy*, 45(7), 1579-1591. <https://doi.org/10.1016/j.brat.2006.11.009>
- Carr, A. (1999). *The Handbook of Child and Adolescent Clinical Psychology: A Contextual Approach*. New York: Routledge.
- Carter, B., & McGoldrick, M. (1989). *The Changing Family Lifecycle: A Framework for Family Therapy* (2nd ed). Boston: Allyn and Bacon.
- Corstens, D., Longden, E., McCarthy-Jones, S., Waddingham, R., & Thomas, N. (2014). Emerging perspectives from the Hearing Voices Movement: Implications for research and practice. *Schizophrenia Bulletin*, 40(4). 285-294. <https://doi.org/10.1093/schbul/sbu007>
- Costello, A., Edelbrock, C., Kalas, R., Kessler, M., & Klaric, S. (1982). NIMH diagnostic interview schedule for children: child version. Rockville, MD: National Institute of Mental Health, Rockville, MD.
- Craddock, N., & Owen, M. J. (2005). The beginning of the end for the Kraepelinian dichotomy. *The British Journal of Psychiatry*, 186(5), 364-366. <https://doi.org/10.1192/bjp.186.5.364>
- Dancey, C. P., & Reidy, J. (2014). *Statistics without Maths for Psychology* (6th ed.). Essex: Pearson Education Limited.

- Davenport, J (2017, 3rd May). Scotland Yard creates squad to tackle knife crime-as another man in stabbed to death in London. *The Evening Standard*. Retrieved from: <http://www.standard.co.uk/news/crime/met-police-creates-crack-squad-to-tackle-knife-crime-as-another-man-is-stabbed-to-death-in-london-a3529171.html>
- De Loore, E., Drukker, M., Gunther, N., Feron, F., Deboutte, D., Sabbe, B., ... & Myin-Germeys, I. (2007). Childhood negative experiences and subclinical psychosis in adolescence: a longitudinal general population study. *Early Intervention in Psychiatry*, 1(2), 201-207. <https://doi.org/10.1111/j.1751-7893.2007.00027.x>
- Dolphin, L., Dooley, B., & Fitzgerald, A. (2015). Prevalence and correlates of psychotic like experiences in a nationally representative community sample of adolescents in Ireland. *Schizophrenia Research*, 169(1), 241–247. <https://doi.org/10.1016/j.schres.2015.09.005>
- Dominguez, M. D. G., Wichers, M., Lieb, R., Wittchen, H. U., & van Os, J. (2011). Evidence that onset of clinical psychosis is an outcome of progressively more persistent subclinical psychotic experiences: an 8-year cohort study. *Schizophrenia Bulletin*, 37(1), 84-93. <https://doi.org/10.1093/schbul/sbp022>
- Downs, J. M., Cullen, A. E., Barragan, M., & Laurens, K. R. (2013). Persisting psychotic-like experiences are associated with both externalising and internalising psychopathology in a longitudinal general population child cohort. *Schizophrenia Research*, 144(1), 99–104. <https://doi.org/10.1016/j.schres.2012.12.009>
- Dummet, N. (2006). Processes for systemic cognitive-behavioural therapy with children, young people, and families. *Behavioural and Cognitive Psychotherapy*, 34, 179-189. <https://doi.org/10.1192/apt.bp.107.004259>
- Elder-Vass, D. (2012). Towards a realist social constructionism. *Sociologia, Problemas E Práticas*, 70, 9-24. <https://doi.org/10.7458/SPP2012701208>

- Escher, S., Romme, M., Buiks, A., Delespaul, P., & Van Os, J. (2002a). Independent course of childhood auditory hallucinations: A sequential 3-year follow-up study. *The British Journal of Psychiatry*, 181(43), 10-18.
<https://doi.org/10.1192/bjp.181.43.s10>
- Escher, S., Romme, M., Buiks, A., Delespaul, P., & van Os, J. (2002b). Formation of delusional ideation in adolescents hearing voices: A prospective study. *American Journal of Medical Genetics*, 114(8), 913-920.
<https://doi.org/10.1002/ajmg.10203>
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G* Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41(4), 1149-1160.
<https://doi.org/10.3758/BRM.41.4.1149>.
- Feise, R. J. (2002). Do multiple outcome measures require p-value adjustment? *BMC Medical Research Methodology*, 2(1), 8-12.
<https://doi.org/10.1186/1471-2288-2-8>
- Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., ... & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine*, 14(4), 245-258.
[https://doi.org/10.1016/S0749-3797\(98\)00017-8](https://doi.org/10.1016/S0749-3797(98)00017-8)
- Field, A. (2009). *Discovering statistics using IBM SPSS statistics* (3rd ed.). London: SAGE Publications Ltd.
- Field, A. (2013). *Discovering statistics using IBM SPSS statistics* (4th ed.). London: SAGE Publications Ltd.

- Fisher, H. L., Appiah-Kusi, E., & Grant, C. (2012). Anxiety and negative self-schemas mediate the association between childhood maltreatment and paranoia. *Psychiatry Research*, 196(2), 323–324.
<https://doi.org/10.1016/j.psychres.2011.12.004>
- Fisher, H. L., Craig, T. K., Fearon, P., Morgan, K., Dazzan, P., Lappin, J., ... & Morgan, C. (2011). Reliability and comparability of psychosis patients' retrospective reports of childhood abuse. *Schizophrenia Bulletin*, 37(4), 546-553. <https://doi.org/10.1093/schbul/sbp103>
- Fisher, H. L., Schreier, A., Zammit, S., Maughan, B., Munafò, M. R., Lewis, G., & Wolke, D. (2013). Pathways between childhood victimization and psychosis-like symptoms in the ALSPAC birth cohort. *Schizophrenia Bulletin*, 39(5), 1045-1055. <https://doi.org/10.1093/schbul/sbs088>
- Fonseca-Pedrero, E., Santaren-Rosell, M., Lemos-Giraldez, S., Paino, M., Sierra-Baigrie, S., & Muniz, J. (2011). Psychotic-like experiences in the adolescent general population. *Acta Esp Psiquiatr*, 39(3), 155-162.
- Fowler, D., Freeman, D., Smith, B. E. N., Kuipers, E., Bebbington, P., Bashforth, H., ... & Garety, P. (2006). The Brief Core Schema Scales (BCSS): psychometric properties and associations with paranoia and grandiosity in non-clinical and psychosis samples. *Psychological Medicine*, 36(6), 749-759. <https://doi.org/10.1017/S0033291706007355>
- Fowler, D., Garety, P., & Kuipers, E. (1995). *Cognitive behaviour therapy for people with psychosis*. Chichester: Willey.
- Freeman, D. (2011). Improving cognitive treatments for delusions. *Schizophrenia Research*, 132(2), 135-139. <https://doi.org/10.1016/j.schres.2011.08.012>
- Freeman, D., & Fowler, D. (2009). Routes to psychotic symptoms: Trauma, anxiety and psychosis-like experiences. *Psychiatry Research*, 169(2), 107–112. <https://doi.org/10.1016/j.psychres.2008.07.009>

- Freeman, D., & Garety, P. (2014). Advances in understanding and treating persecutory delusions: A review. *Social Psychiatry and Psychiatric Epidemiology*, 49(8), 1179-1189. <https://doi.org/10.1007/s00127-014-0928-7>.
- Freeman, D., & Garety, P. A. (1999). Worry, worry processes and dimensions of delusions: An exploratory investigation of a role for anxiety processes in the maintenance of delusional distress. *Behavioural and Cognitive Psychotherapy*, 27(1), 47-62.
- Freeman, D., & Garety, P. A. (2003). Connecting neurosis and psychosis: The direct influence of emotion on delusions and hallucinations. *Behaviour Research and Therapy*, 41(8), 923-947. [https://doi.org/10.1016/S0005-7967\(02\)00104-3](https://doi.org/10.1016/S0005-7967(02)00104-3)
- Freeman, D., Dunn, G., Startup, H., Pugh, K., Cordwell, J., Mander, H., ... & Kingdon, D. (2015). Effects of cognitive behaviour therapy for worry on persecutory delusions in patients with psychosis (WIT): A parallel, single-blind, randomised controlled trial with a mediation analysis. *The Lancet Psychiatry*, 2(4), 305-313. [https://doi.org/10.1016/S2215-0366\(15\)00039-5](https://doi.org/10.1016/S2215-0366(15)00039-5)
- Freeman, D., Garety, P. A., Kuipers, E., Fowler, D., & Bebbington, P. E. (2002). A cognitive model of persecutory delusions. *British Journal of Clinical Psychology*, 41(4), 331-347. <https://doi.org/10.1348/014466502760387461>
- Garety, P. A., & Freeman, D. (2013). The past and future of delusions research: From the inexplicable to the treatable. *The British Journal of Psychiatry*, 203(5), 327-333. <https://doi.org/10.1192/bjp.bp.113.126953>
- Garety, P. A., Bebbington, P., Fowler, D., Freeman, D., & Kuipers, E. (2007). Implications for neurobiological research of cognitive models of psychosis: A theoretical paper. *Psychological Medicine*, 37, 1377-1391. <https://doi.org/10.1017/S003329170700013X>

- Garety, P. A., Gittins, M., Jolley, S., Bebbington, P., Dunn, G., Kuipers, E., ... & Freeman, D. (2013). Differences in cognitive and emotional processes between persecutory and grandiose delusions. *Schizophrenia Bulletin*, 39(3), 629-639. <https://doi.org/10.1093/schbul/sbs059>
- Garety, P. A., Kuipers, E., Fowler, D., Freeman, D., & Bebbington, P. E. (2001). A cognitive model of the positive symptoms of psychosis. *Psychological Medicine*, 31(02), 189-195. <https://doi.org/10.1017/S0033291701003312>
- Garety, P., Waller, H., Emsley, R., Jolley, S., Kuipers, E., Bebbington, P., ... & Freeman, D. (2015). Cognitive mechanisms of change in delusions: An experimental investigation targeting reasoning to effect change in paranoia. *Schizophrenia Bulletin*, 41(2), 400-410. <https://doi.org/10.1093/schbul/sbu103>
- Gilbert, P. (2009). Introducing compassion-focused therapy. *Advances in Psychiatric Treatment*, 15(3), 199-208. <https://doi.org/10.1192/apt.bp.107.005264>
- Gilbert, R., Widom, C. S., Browne, K., Fergusson, D., Webb, E., & Janson, S. (2009). Burden and consequences of child maltreatment in high-income countries. *The Lancet*, 373(9657), 68-81. [https://doi.org/10.1016/S0140-6736\(08\)61706-7](https://doi.org/10.1016/S0140-6736(08)61706-7)
- Goodman, R. (2001). Psychometric properties of the strengths and difficulties questionnaire. *Journal of the American Academy of Child & Adolescent Psychiatry*, 40(11), 1337-1345. <https://doi.org/10.1097/00004583-200111000-00015>
- Goodman, R., Meltzer, H., & Bailey, V. (2003). The Strengths and Difficulties Questionnaire: A pilot study on the validity of the self-report version. *International Review of Psychiatry*, 15(1-2), 173-177. <https://doi.org/10.1080/0954026021000046137>

- Gracie, A., Freeman, D., Green, S., Garety, P. A., Kuipers, E., Hardy, A., ... & Fowler, D. (2007). The association between traumatic experience, paranoia and hallucinations: A test of the predictions of psychological models. *Acta Psychiatrica Scandinavica*, 116(4), 280-289. <https://doi.org/10.1111/j.1600-0447.2007.01011.x>
- Guloksuz, S., van Nierop, M., Lieb, R., van Winkel, R., Wittchen, H. U., & van Os, J. (2015). Evidence that the presence of psychosis in non-psychotic disorder is environment-dependent and mediated by severity of non-psychotic psychopathology. *Psychological Medicine*, 45(11), 2389-2401. <https://doi.org/10.1017/S0033291715000380>
- Gunzler, D., Chen, T., Wu, P., & Zhang, H. (2013). Introduction to mediation analysis with structural equation modeling. *Shanghai Archives of Psychiatry*, 25(6), 390- 394. <https://doi.org/10.3969/j.issn.1002-0829.2013.06.009>
- Hardy, A., Emsley, R., Freeman, D., Bebbington, P., Garety, P. A., Kuipers, E. E., ... & Fowler, D. (2016). Psychological mechanisms mediating effects between trauma and psychotic symptoms: The role of affect regulation, intrusive trauma memory, beliefs, and depression. *Schizophrenia Bulletin*, 42(1), 34-43. <https://doi.org/10.1093/schbul/sbv175>
- Harley, M., Kelleher, I., Clarke, M., Lynch, F., Arseneault, L., Connor, D., ... & Cannon, M. (2010). Cannabis use and childhood trauma interact additively to increase the risk of psychotic symptoms in adolescence. *Psychological medicine*, 40(10), 1627-1634. <https://doi.org/10.1017/S0033291709991966>
- Heriot-Maitland, C., Knight, M., & Peters, E. (2012). A qualitative comparison of psychotic-like phenomena in clinical and non-clinical populations. *British Journal of Clinical Psychology*, 51(1), 37-53. <https://doi.org/10.1111/j.2044-8260.2011.02011.x>

- Hershkowitz, I., Lanes, O., & Lamb, M. E. (2007). Exploring the disclosure of child sexual abuse with alleged victims and their parents. *Child Abuse & Neglect*, 31(2), 111-123. <https://doi.org/10.1016/j.chiabu.2006.09.004>
- Johns, L. C., & van Os, J. (2001). The continuity of psychotic experiences in the general population. *Clinical Psychology Review*, 21(8), 1125-1141. [https://doi.org/10.1016/S0272-7358\(01\)00103-9](https://doi.org/10.1016/S0272-7358(01)00103-9)
- Johns, L. C., Cannon, M., Singleton, N., Murray, R. M., Farrell, M., Brugha, T., ... & Meltzer, H. (2004). Prevalence and correlates of self-reported psychotic symptoms in the British population. *The British Journal of Psychiatry*, 185(4), 298-305. <https://doi.org/10.3390/ijerph7062514>
- Kelleher, I., & Cannon, M. (2011). Psychotic-like experiences in the general population: Characterizing a high-risk group for psychosis. *Psychological Medicine*, 41(1), 1-6. <https://doi.org/10.1017/S0033291710001005>
- Kelleher, I., Connor, D., Clarke, M. C., Devlin, N., Harley, M., & Cannon, M. (2012a). Prevalence of psychotic symptoms in childhood and adolescence: A systematic review and meta-analysis of population-based studies. *Psychological Medicine*, 42(09), 1857-1863. <https://doi.org/10.1017/S0033291711002960>
- Kelleher, I., Devlin, N., Wigman, J. T., Kehoe, A., Murtagh, A., Fitzpatrick, C., & Cannon, M. (2014). Psychotic experiences in a mental health clinic sample: Implications for suicidality, multimorbidity and functioning. *Psychological Medicine*, 44(8), 1615-1624. <https://doi.org/10.1017/S0033291713002122>
- Kelleher, I., Harley, M., Lynch, F., Arseneault, L., Fitzpatrick, C., & Cannon, M. (2008). Associations between childhood trauma, bullying and psychotic symptoms among a school-based adolescent sample. *The British Journal of Psychiatry*, 193(5), 378-382. <https://doi.org/10.1192/bjp.bp.108.049536>

- Kelleher, I., Harley, M., Murtagh, A., & Cannon, M. (2011). Are screening instruments valid for psychotic-like experiences? A validation study of screening questions for psychotic-like experiences using in-depth clinical interview. *Schizophrenia Bulletin*, 37(2), 362-369.
<https://doi.org/10.1093/schbul/sbp057>
- Kelleher, I., Keeley, H., Corcoran, P., Lynch, F., Fitzpatrick, C., Devlin, N., ... Cannon, M. (2012b). Clinicopathological significance of psychotic experiences in non-psychotic young people: Evidence from four population-based studies. *The British Journal of Psychiatry*, 201(1), 26-32.
<https://doi.org/10.1192/bjp.bp.111.101543>
- Kelleher, I., Wigman, J. T., Harley, M., O'Hanlon, E., Coughlan, H., Rawdon, C., ... & Cannon, M. (2015). Psychotic experiences in the population: Association with functioning and mental distress. *Schizophrenia research*, 165(1), 9-14. <https://doi.org/10.1016/j.schres.2015.03.020>.
- Kessler, R. C., McLaughlin, K. A., Green, J. G., Gruber, M. J., Sampson, N. A., Zaslavsky, A. M., ... Williams, D. R. (2010). Childhood adversities and adult psychopathology in the WHO World Mental Health Surveys. *The British Journal of Psychiatry*, 197(5), 378-385.
<https://doi.org/10.1192/bjp.bp.110.080499>
- Kesting, M. L., & Lincoln, T. M. (2013). The relevance of self-esteem and self-schemas to persecutory delusions: A systematic review. *Comprehensive Psychiatry*, 54(7), 766-789.
<https://doi.org/10.1016/j.comppsy.2013.03.002>
- Kilcommons, A. M., & Morrison, A. P. (2005). Relationships between trauma and psychosis: An exploration of cognitive and dissociative factors. *Acta Psychiatrica Scandinavica*, 112(5), 351-359.
<https://doi.org/10.1111/j.1600-0447.2005.00623.x>

- Kilcommons, A. M., Morrison, A. P., Knight, A., & Lobban, F. (2008). Psychotic experiences in people who have been sexually assaulted. *Social Psychiatry and Psychiatric Epidemiology*, 43(8), 602-611.
<https://doi.org/10.1007/s00127-007-0303-z>
- Kirkbride, J. B., Fearon, P., Morgan, C., Dazzan, P., Morgan, K., Tarrant, J., ... & Mallett, R. M. (2006). Heterogeneity in incidence rates of schizophrenia and other psychotic syndromes: Findings from the 3-center AeSOP study. *Archives of General Psychiatry*, 63(3), 250-258.
<https://doi.org/10.1001/archpsyc.63.3.250>
- Lancefield, K. S., Raudino, A., Downs, J. M., & Laurens, K. R. (2016). Trajectories of childhood internalizing and externalizing psychopathology and psychotic-like experiences in adolescence: a prospective population-based cohort study. *Development and Psychopathology*, 28(2), 527-536.
<https://doi.org/10.1017/S0954579415001108>
- Lataster, T., van Os, J., Drukker, M., Henquet, C., Feron, F., Gunther, N., & Myin-Germeys, I. (2006). Childhood victimisation and developmental expression of non-clinical delusional ideation and hallucinatory experiences. *Social Psychiatry and Psychiatric Epidemiology*, 41(6), 423-428.
<https://doi.org/10.1007/s00127-006-0060-4>
- Laurens, K. R., Hobbs, M. J., Sunderland, M., Green, M. J., & Mould, G. L. (2012). Psychotic-like experiences in a community sample of 8000 children aged 9 to 11 years: An item response theory analysis. *Psychological medicine*, 42(07), 1495-1506. <https://doi.org/10.1017/S0033291711002108>
- Laurens, K. R., Hodgins, S., Maughan, B., Murray, R. M., Rutter, M. L., & Taylor, E. A. (2007). Community screening for psychotic-like experiences and other putative antecedents of schizophrenia in children aged 9–12 years. *Schizophrenia Research*, 90(1), 130-146.
<https://doi.org/10.1016/j.schres.2006.11.006>

- Lee, K., Chan, K., Chang, W., Lee, E. H., Hui, C. L., & Chen, E. Y. (2016). A systematic review on definitions and assessments of psychotic-like experiences. *Early Intervention in Psychiatry*, 10(1), 3-16.
<https://doi.org/10.1111/eip.12228>
- Levy, K. N., Johnson, B. N., Clouthier, T. L., Scala, J., & Temes, C. M. (2015). An attachment theoretical framework for personality disorders. *Canadian Psychology*, 56(2), 197-207. <https://doi.org/10.1037/cap0000025>
- Linscott, R. J., & Van Os, J. (2013). An updated and conservative systematic review and meta-analysis of epidemiological evidence on psychotic experiences in children and adults: On the pathway from proneness to persistence to dimensional expression across mental disorders. *Psychological Medicine*, 43(6), 1133-1149.
<https://doi.org/10.1017/S0033291712001626>
- Longden, E., & Read, J. (2016). Social adversity in the etiology of psychosis: A review of the evidence. *American Journal of Psychotherapy*, 70(1), 5-33.
- Longden, E., Madill, A., & Waterman, M. G. (2012). Dissociation, trauma, and the role of lived experience: toward a new conceptualization of voice hearing. *Psychological bulletin*, 138(1), 28–76.
<https://doi.org/10.1037/a0025995>
- Lothian, J., & Read, J. (2002). Asking about abuse during mental health assessments: Clients' views and experiences. *New Zealand Journal of Psychology*, 31(2), 98-103.
- Mackie, C. J., Castellanos-Ryan, N., & Conrod, P. J. (2011). Developmental trajectories of psychotic-like experiences across adolescence: Impact of victimization and substance use. *Psychological Medicine*, 41(1), 47-58.
<https://doi.org/10.1017/S0033291710000449>

- Maddox, L., Jolley, S., Laurens, K. R., Hirsch, C., Hodgins, S., Browning, S., ... & Kuipers, E. (2013). Cognitive behavioural therapy for unusual experiences in children: A case series. *Behavioural and Cognitive Psychotherapy*, 41(3), 344-358.
<https://doi.org/10.1017/S1352465812000343>
- Main, M., & Solomon, J. (1990). Procedures for identifying infants as disorganized/disoriented during the Ainsworth Strange Situation. In M.T. Greenberg, D. Cicchetti, & M. Cummings (Ed.), *Attachment in the preschool years: Theory, research, and intervention* (pp.121-160). London: The University of Chicago Press, Ltd, pp 121-160.
- McDougall, T., Worrall-Davies, A., Hewson, L., Richardson, G., & Cotgrove, A. (2008). Tier 4 Child and Adolescent Mental Health Services (CAMHS)- Inpatient Care, Day Services and Alternatives: An Overview of Tier 4 CAMHS Provision in the UK. *Child and Adolescent Mental Health*, 13(4), 173-180. <https://doi.org/10.1111/j.1475-3588.2007.00481.x>
- McEvoy, P., & Richards, D. (2006). A critical realist rationale for using a combination of quantitative and qualitative methods. *Journal of Research in Nursing*, 11(1), 66-78. <https://doi.org/10.1177/1744987106060192>
- Melo, S. S., Taylor, J. L., & Bentall, R. P. (2006). Poor me versus bad me paranoia and the instability of persecutory ideation. *Psychology and Psychotherapy: Theory, Research and Practice*, 79(2), 271-287.
<https://doi.org/10.1348/147608305X52856>
- Morgan, C., Fisher, H., Hutchinson, G., Kirkbride, J., Craig, T. K., Morgan, K., ... & Fearon, P. (2009). Ethnicity, social disadvantage and psychotic-like experiences in a healthy population based sample. *Acta Psychiatrica Scandinavica*, 119(3), 226-235.
<https://doi.org/10.1111/j.1600-0447.2008.01301.x>

- Morrison, A. P. (2001). The interpretation of intrusions in psychosis: An integrative cognitive approach to hallucinations and delusions. *Behavioural and Cognitive Psychotherapy*, 29(3), 257-276.
<https://doi.org/10.1017/S1352465801003010>
- Muris, P., Meesters, C., Eijkelenboom, A., & Vincken, M. (2004). The self-report version of the Strengths and Difficulties Questionnaire: Its psychometric properties in 8-to 13-year-old non-clinical children. *British Journal of Clinical Psychology*, 43(4), 437-448.
<https://doi.org/10.1348/0144665042388982>
- Myin-Germeys, I., Krabbendam, L., & van Os, J. (2003). Continuity of psychotic symptoms in the community. *Current Opinion in Psychiatry*, 16(4), 443-449. <https://doi.org/10.1097/01.yco.0000079208.36371.cd>
- National Collaborating Centre for Mental Health (2014). *Psychosis and Schizophrenia in adults: The NICE guideline on treatment and management. Updated edition*. London: National Institute of Health & Clinical Excellence. Retrieved from:
<https://www.nice.org.uk/guidance/cg178/evidence/full-guideline-490503565>
- National Institute of Health & Clinical Excellence (2013). *Psychosis and schizophrenia in children and young people: Recognition and management (CG155)*. Retrieved from:
<https://www.nice.org.uk/guidance/cg155/resources/psychosis-and-schizophrenia-in-children-and-young-people-recognition-and-management-pdf-35109632980933>

- Newbury, J., Arseneault, L., Caspi, A., Moffitt, T. E., Odgers, C. L., & Fisher, H. L. (2016). Why are children in urban neighborhoods at increased risk for psychotic symptoms? Findings from a UK longitudinal cohort study. *Schizophrenia Bulletin*, 42(6), 1372-1383.
<https://doi.org/10.1093/schbul/sbw052>
- Noone, D., Ames, C., Hassanali, N., Browning, S., Bracegirdle, K., Corrigan, R., ... & Jolley, S. (2015). A preliminary investigation of schematic beliefs and unusual experiences in children. *European Psychiatry*, 30(5), 569-575.
<https://doi.org/10.1016/j.eurpsy.2014.12.006>.
- Office for National Statistics (2011). Ethnicity and National Identity in England and Wales. Retrieved from:
http://webarchive.nationalarchives.gov.uk/20160105160709/http://www.ons.gov.uk/ons/dcp171776_290558.pdf
- Pallant, J. (2013). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS* (5th ed.). Berkshire: Open University Press.
- Parkin, E. (2016). Children and young people's mental health-policy, services, funding and education. *House of Common: Briefing Paper*, no: 07547.
- Perona-Garcelán, S., García-Montes, J. M., Rodríguez-Testal, J. F., López-Jiménez, A. M., Ruiz-Veguilla, M., Ductor-Recuerda, M. J., ... & Pérez-Álvarez, M. (2014). Relationship between childhood trauma, mindfulness, and dissociation in subjects with and without hallucination proneness. *Journal of Trauma & Dissociation*, 15(1), 35-51.
<https://doi.org/10.1016/j.psychres.2016.08.015>
- Perona-Garcelán, S., Carrascoso-López, F., García-Montes, J. M., Ductor-Recuerda, M. J., López Jiménez, A. M., Vallina-Fernández, O., ... & Gómez-Gómez, M. T. (2012). Dissociative experiences as mediators between childhood trauma and auditory hallucinations. *Journal of Traumatic Stress*, 25(3), 323-329. <https://doi.org/10.1002/jts.21693>.

- Pilgram, D., & Bentall, R. (1999). The medicalisation of misery. A critical realist analysis of the concept of depression. *Journal of Mental Health*, 8(3), 261-274. <https://doi.org/10.1080/09638239917427>
- Pilton, M., Varese, F., Berry, K., & Bucci, S. (2015). The relationship between dissociation and voices: A systematic literature review and meta-analysis. *Clinical Psychology Review*, 40, 138-155. <https://doi.org/10.1016/j.cpr.2015.06.004>
- Piolino, P., Desgranges, B., Benali, K., & Eustache, F. (2002). Episodic and semantic remote autobiographical memory in ageing. *Memory*, 10(4), 239-257. <https://doi.org/10.1080/09658210143000353>
- Poulton, R., Caspi, A., Moffitt, T. E., Cannon, M., Murray, R., & Harrington, H. (2000). Children's self-reported psychotic symptoms and adult schizophreniform disorder: A 15-year longitudinal study. *Archives of General Psychiatry*, 57(11), 1053-1058. <https://doi.org/10.1001/archpsyc.57.11.1053>
- Putnam, F. W. (2006). The impact of trauma on child development. *Juvenile and Family Court Journal*, 57(1), 1-11. <https://doi.org/10.1111/j.1755-6988.2006.tb00110.x>
- Read, J., & Bentall, R. P. (2012). Negative childhood experiences and mental health: Theoretical, clinical and primary prevention implications. *The British Journal of Psychiatry*, 200(2), 88-91. <https://doi.org/10.1192/bjp.bp.111.096727>
- Read, J., Agar, K., Argyle, N., & Aderhold, V. (2003). Sexual and physical abuse during childhood and adulthood as predictors of hallucinations, delusions and thought disorder. *Psychology and Psychotherapy: Theory, Research and Practice*, 76(1), 1-22. <https://doi.org/10.1348/14760830260569210>

- Read, J., Bentall, R. P., & Fosse, R. (2009). Time to abandon the bio-bio-bio model of psychosis: Exploring the epigenetic and psychological mechanisms by which adverse life events lead to psychotic symptoms. *Epidemiologia e Psichiatria Sociale*, 18(4), 299-310. <https://doi.org/10.1017/S1121189X00000257>
- Read, J., Fosse, R., Moskowitz, A., & Perry, B. (2014). The traumagenic neurodevelopmental model of psychosis revisited. *Neuropsychiatry*, 4(1), 65-79. <https://doi.org/10.2217/npv.13.89>
- Read, J., Hammersley, P., & Rudegeair, T. (2007). Why, when and how to ask about childhood abuse. *Advances in Psychiatric Treatment*, 13(2), 101-110. <https://doi.org/10.1192/apt.bp.106.002840>
- Read, J., Haslam, N., Sayce, L., & Davies, E. (2006). Prejudice and schizophrenia: A review of the 'mental illness is an illness like any other' approach. *Acta Psychiatrica Scandinavica*, 114(5), 303-318. <https://doi.org/10.1111/j.1600-0447.2006.00824.x>
- Read, J., Perry, B. D., Moskowitz, A., & Connolly, J. (2001). The contribution of early traumatic events to schizophrenia in some patients: A traumagenic neurodevelopmental model. *Psychiatry: Interpersonal and Biological Processes*, 64(4), 319-345. <https://doi.org/10.1521/psyc.64.4.319.18602>
- Read, J., Sampson, M., & Critchley, C. (2016). Are mental health services getting better at responding to abuse, assault and neglect? *Acta Psychiatrica Scandinavica*, 143(4), 287-294. <https://doi.org/10.1111/acps.12552>
- Read, J., van Os, J., Morrison, A. P., & Ross, C. A. (2005). Childhood trauma, psychosis and schizophrenia: A literature review with theoretical and clinical implications. *Acta Psychiatrica Scandinavica*, 112(5), 330-350. <https://doi.org/10.1111/j.1600-0447.2005.00634.x>

- Richter, J., Sagatun, A., Heyerdahl, S., Oppedal, B., & Roysamb, E. (2011). The Strengths and Difficulties Questionnaire (SDQ)- self-report. An analysis of its structure in a multi-ethnic urban adolescent sample. *Journal of Child Psychology and Psychiatry*, (52), 1002-1011.
<https://doi.org/10.1111/j.1469-7610.2011.02372.x>
- Ross, C. E., & Mirowsky, J. (2001). Neighborhood disadvantage, disorder, and health. *Journal of Health and Social Behavior*, 42, 258-276.
- Ross, C.E., Mirowsky, J., & Pribesh, S. (2001). 'Powerlessness and the amplification of threat: Neighbourhood disadvantage, disorder and mistrust'. *American Sociological Review*, (66) 568–591.
- Ruddle, A., Mason, O., & Wykes, T. (2011). A review of hearing voices groups: Evidence and mechanisms of change. *Clinical Psychology Review*, 31(5), 757-766. <https://doi.org/10.1016/j.cpr.2011.03.010>
- Ruffell, T., Azis, M., Hassanali, N., Ames, C., Browning, S., Bracegirdle, K., ... & Jolley, S. (2016). Variation in psychosocial influences according to the dimensions and content of children's unusual experiences: Potential routes for the development of targeted interventions. *European Child & Adolescent Psychiatry*, 25(3), 311-319.
<https://doi.org/10.1007/s00787-015-0739-8>
- Schore, A. N. (2001). The effects of early relational trauma on right brain development, affect regulation, and infant mental health. *Infant Mental Health Journal*, 22(1-2), 201-269.
[https://doi.org/10.1002/1097-0355\(200101/04\)22:1<201::AID-IMHJ8>3.0.CO;2-9](https://doi.org/10.1002/1097-0355(200101/04)22:1<201::AID-IMHJ8>3.0.CO;2-9)

- Schreier, A., Wolke, D., Thomas, K., Horwood, J., Hollis, C., Gunnell, D., ... & Harrison, G. (2009). Prospective study of peer victimization in childhood and psychotic symptoms in a nonclinical population at age 12 years. *Archives of General Psychiatry*, 66(5), 527-536. <https://doi.org/10.1001/archgenpsychiatry.2009.23>.
- Schuengel, C., Oosterman, M., & Sterkenburg, P. S. (2009). Children with disrupted attachment histories: Interventions and psychophysiological indices of effects. *Child and Adolescent Psychiatry and Mental Health*, 3(1), 26-36. <https://doi.org/10.1186/1753-2000-3-26>
- Sheinbaum, T., Kwapil, T. R., & Barrantes-Vidal, N. (2014). Fearful attachment mediates the association of childhood trauma with schizotypy and psychotic-like experiences. *Psychiatry Research*, 220(1), 691-693. <https://doi.org/10.1016/j.psychres.2014.07.030>
- Shevlin, M., Murphy, J., Read, J., Mallett, J., Adamson, G., & Houston, J. E. (2011). Childhood adversity and hallucinations: A community-based study using the National Comorbidity Survey Replication. *Social Psychiatry and Psychiatric Epidemiology*, 46(12), 1203-1210. <https://doi.org/10.1007/s00127-010-0296-x>
- Silver, M. (2013). *Attachment in common sense and doodles: A practical guide*. London: Jessica Kingsley Publishers.
- Smith, B., Fowler, D. G., Freeman, D., Bebbington, P., Bashforth, H., Garety, P., ... & Kuipers, E. (2006). Emotion and psychosis: Links between depression, self-esteem, negative schematic beliefs and delusions and hallucinations. *Schizophrenia Research*, 86(1), 181-188. <https://doi.org/10.1016/j.schres.2006.06.018>
- Steinberg, L., & Morris, A. S. (2001). Adolescent development. *Annual Review of Psychology*, 52, 83-110. <https://doi.org/10.1146/annurev.psych.52.1.83>

- Stowkowy, J., & Addington, J. (2012). Maladaptive schemas as a mediator between social defeat and positive symptoms in young people at clinical high risk for psychosis. *Early Intervention in Psychiatry*, 6(1), 87-90. <https://doi.org/10.1111/j.1751-7893.2011.00297.x>
- Tabachnick, B. G., & Fidell, L. S. (2014). Using Multivariate Statistics (6th ed.). Essex: Pearson Education Limited.
- Thakker, J., & Ward, T. (1998). Culture and classification: The cross-cultural application of the DSM-IV. *Clinical Psychology Review*, 18(5), 501-529. [https://doi.org/10.1016/S0272-7358\(97\)00107-4](https://doi.org/10.1016/S0272-7358(97)00107-4)
- The British Psychological Society. (2016). Understanding Psychosis and Schizophrenia. Retrieved from: <http://www.bps.org.uk/networks-and-communities/member-microsite/division-clinical-psychology/understanding-psychosis-and-schizophrenia>
- Tripathy, J. P. (2013). Secondary data analysis: Ethical issues and challenges. *Iranian Journal of Public Health*, 42(12), 1478-1479.
- Trotta, A., Murray, R. M., & Fisher, H. L. (2015). The impact of childhood adversity on the persistence of psychotic symptoms: a systemic review and meta-analysis. *Psychological Medicine*, 45(12), 2481-2498. <https://doi.org/10.1017/S0033291715000574>
- Trower, P., & Chadwick, P. (1995). Pathways to defense of the self: A theory of two types of paranoia. *Clinical Psychology: Science and Practice*, 2(3), 263-278. <https://doi.org/10.1111/j.1468-2850.1995.tb00044.x>
- van Os, J., Linscott, R. J., Myin-Germeys, I., Delespaul, P., & Krabbendam, L. (2009). A systematic review and meta-analysis of the psychosis continuum: evidence for a psychosis proneness–persistence–impairment model of psychotic disorder. *Psychological Medicine*, 39(2), 179-195. <https://doi.org/10.1017/S0033291708003814>

- Varese, F., & Bentall, R. P. (2011). The metacognitive beliefs account of hallucinatory experiences: A literature review and meta-analysis. *Clinical Psychology Review*, 31(5), 850-864.
<https://doi.org/10.1016/j.cpr.2010.12.001>
- Varese, F., Barkus, E., & Bentall, R. P. (2012). Dissociation mediates the relationship between childhood trauma and hallucination-proneness. *Psychological Medicine*, 42(5), 1025-1036.
<https://doi.org/10.1017/S0033291711001826>
- Varese, F., Smeets, F., Drukker, M., Lieveise, R., Lataster, T., Viechtbauer, W., ... & Bentall, R. P. (2012). Childhood adversities increase the risk of psychosis: A meta-analysis of patient-control, prospective-and cross-sectional cohort studies. *Schizophrenia Bulletin*, 38(4), 661-671.
<https://doi.org/10.1093/schbul/sbs050>
- Verdoux, H., & van Os, J. (2002). Psychotic symptoms in non-clinical populations and the continuum of psychosis. *Schizophrenia research*, 54(1), 59-65.
[https://doi.org/10.1016/S0920-9964\(01\)00352-8](https://doi.org/10.1016/S0920-9964(01)00352-8)
- Walker, E. F., & Diforio, D. (1997). Schizophrenia: A neural diathesis-stress model. *Psychological Review*, 104(4), 667-685.
<https://doi.org/10.1037/0033-295X.104.4.667>
- Waters, F., Allen, P., Aleman, A., Fernyhough, C., Woodward, T.S., Badcock, J. C., ... & Laroi, F. (2012). Auditory hallucination in schizophrenia and non-schizophrenia populations: A review and integrated model of cognitive mechanisms. *Schizophrenia Bulletin*, 38(4), 683-692.
<https://doi.org/10.1093/schbul/sbs045>
- Wells, A. (1997). Cognitive therapy of anxiety disorders: A practical manual and conceptual guide. West Sussex: John Wiley & Sons Ltd.

- Welsh, P., & Oates, R. (2015). Opinion piece: "Hearing the voices of young people!" Do we require more personal accounts from young people who have psychotic-like experiences? *Psychosis*, 7(3), 269-271.
<https://doi.org/10.1080/17522439.2014.965725>
- Wickham, S., Sitko, K., & Bentall, R. P. (2015). Insecure attachment is associated with paranoia but not hallucinations in psychotic patients: The mediating role of negative self-esteem. *Psychological medicine*, 45(7), 1495-1507.
<https://doi.org/10.1017/S0033291714002633>
- Wicks, S., Hjern, A., Gunnell, D., Lewis, G., & Dalman, C. (2005). Social adversity in childhood and the risk of developing psychosis: A national cohort study. *American Journal of Psychiatry*, 162(9), 1652-1657.
<https://doi.org/10.1176/appi.ajp.162.9.1652>
- Wigman, J. T. W., van Winkel, R., Ormel, J., Verhulst, F. C., van Os, J., & Vollebergh, W. A. M. (2012). Early trauma and familial risk in the development of the extended psychosis phenotype in adolescence. *Acta Psychiatrica Scandinavica*, 126(4), 266-273.
<https://doi.org/10.1111/j.1600-0447.2012.01857.x>
- Wigman, J. T. W., van Winkel, R., Raaijmakers, Q. A. W., Ormel, J., Verhulst, F. C., Reijneveld, S. A., ... & Vollebergh, W. A. M. (2011a). Evidence for a persistent, environment-dependent and deteriorating subtype of subclinical psychotic experiences: A 6-year longitudinal general population study. *Psychological Medicine*, 41(11), 2317-2329.
<https://doi.org/10.1017/S0033291711000304>
- Wigman, J. T., Vollebergh, W. A., Raaijmakers, Q. A., Iedema, J., van Dorsselaer, S., Ormel, J., ... & van Os, J. (2011b). The structure of the extended psychosis phenotype in early adolescence- A cross-sample replication. *Schizophrenia bulletin*, 37(4), 850-860.
<https://doi.org/10.1093/schbul/sbp154>

- Wilkinson, P., Dubicka, B., Kelvin, R., Roberts, C., & Goodyer, I. (2009). Treated depression in adolescents: Predictors of outcome at 28 weeks. *The British Journal of Psychiatry*, 194(4), 334-341.
<https://doi.org/10.1192/bjp.bp.108.052381>
- Willig, C. (2012). Perspectives on the epistemological bases for qualitative research. In H. Cooper (Ed.), *The handbook of research methods in psychology* (pp. 5-21). Washington: American Psychological Association.
- Willig, C. (2016). Constructivism and 'The Real World': Can they co-exist? *QMIP Bulletin*, 21, 33-38.
- Wolkind, S., & Coleman, E. Z. (1983). Adult psychiatric disorder and childhood experiences. The validity of retrospective data. *The British Journal of Psychiatry*, 143(2), 188-191. <https://doi.org/10.1192/bjp.143.2.188>
- World Health Organisation (2014). Social Determinants of Mental Health.
Retrieved from:
http://www.who.int/mental_health/publications/gulbenkian_paper_social_determinants_of_mental_health/en/
- Yalom, I. D. (1995). *The theory and practice of group psychotherapy* (4th ed.). Basic Books.
- Young, M., Read, J., Barker-Collo, S., & Harrison, R. (2001). Evaluating and overcoming barriers to taking abuse histories. *Professional Psychology: Research and Practice*, 32(4), 407-414.
<https://doi.org/10.1037/0735-7028.32.4.407>
- Yung, A. R., Nelson, B., Baker, K., Buckby, J. A., Baksheev, G., & Cosgrave, E. M. (2009). Psychotic-like experiences in a community sample of adolescents: Implications for the continuum model of psychosis and prediction of schizophrenia. *Australian and New Zealand Journal of Psychiatry*, 43(2), 118-128. <https://doi.org/10.1080/00048670802607188>.

Zahn–Waxler, C., Klimes–Dogan, B., & Slattery, M. J. (2000). Internalizing problems of childhood and adolescence: Prospects, pitfalls, and progress in understanding the development of anxiety and depression. *Development and Psychopathology*, 12(03), 443-466.

Zubin, J., & Spring, B. (1977). Vulnerability: A new view of schizophrenia. *Journal of Abnormal Psychology*, 86(2), 103-126.
<https://doi.org/10.1037/0021-843X.86.2.103>

Appendix A: Literature Search

The guiding research question for the literature review was (Booth et al., 2016):
What is the relationship between childhood adversity and unusual experiences in a child and adolescent population?

The search was conducted using PsychINFO, PsychArticles and CINAHL Plus via EBSCO, and Scopus. The search concentrated on academic journals published between 2000-2017, as this was when childhood UEs started to be researched more extensively. The following search terms were used: psychosis OR schizophreni* OR delusion OR auditory hallucin* OR vis* hallucin* OR sub-clinical OR psychotic-like experience* OR voice* OR paran* OR suspic* OR unusual experience*) AND (child* OR teen* OR adolescen* OR young people) AND (child* abuse OR child* advers* OR negative life event* OR trauma). Further papers were identified using Google Scholar and Research Gate, as well as the references lists of the relevant papers identified in the initial search.

The following limiters were applied:

- Dates: 2000-2016
- Subject Age: adolescence (13-17 yrs); childhood (birth-12 yrs); school age (6-12yrs). This limiter was applied to the EBSCO search only, as this limiter option was not available in Scopus.
- Source Type: academic journals.
- Language: English
- Major Heading: Psychosis

A total of 67 papers were identified via EBSCO (PsychINFO, PsychArticles and CINAHL Plus), and 81 papers were identified via Scopus. All titles and abstract were reviewed for relevance. The following exclusion criteria were applied:

- Participants were over the age of 18.

- If childhood adversity or negative life events were not assessed or considered. (e.g. the focus was on biological or neuropsychological correlates with UEs, familial risk, and pharmacological interventions).
- Participants were recruited from paediatric populations (e.g. 22q11).
- The focus was on first-episode psychosis and schizophrenia outcomes.

The search identified a total of 17 relevant papers, ten studies were identified in the EBSCO search, a further four studies were identified in the Scopus search, and three studies were identified via reference lists and Research Gate.

Appendix B: NHS Ethics for the Three Original Studies.

NHS
National Research Ethics Service
NRES Committee London - Hampstead
Northwick Park Hospital REC Centre
Level 7 Maternity Block
Northwick Park Hospital
Watford Road
Harrow
Middlesex HA1 3UJ
Telephone: 020 8899 2915
Facsimile: 020 8899 5222

28 April 2011

[Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]

Study title: Coping with unusual experiences and emotional problems: an evaluation of a training package for children aged 8-14 years.
REC reference: 11/LO/0023

Thank you for your letter of 10 April 2011 responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information has been considered on behalf of the Committee by the Chair.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below.

Ethical review of research sites

NHS sites

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

Non-NHS sites

The Committee has not yet been notified of the outcome of any site-specific assessment (SSA) for the non-NHS research site(s) taking part in this study. The favourable opinion does not therefore apply to any non-NHS site at present. We will write to you again as soon as one Research Ethics Committee has notified the outcome of a SSA. In the meantime no study procedures should be initiated at non-NHS sites.

Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Management permission or approval must be obtained from each host organisation prior to the start

This Research Ethics Committee is an advisory committee to London Strategic Health Authority.
The National Research Ethics Service (NRES) represents the HRES Directorate within
the National Health Service. It is not a part of the NHS and is not a public body.

of the study at the site concerned.

Management permission ("R&D approval") should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements.

Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at <http://www.rforum.nhs.uk>

Where a NHS organisation's role in the study is limited to identifying and referring potential participants to research sites ("participant identification centre"), guidance should be sought from the R&D office on the information it requires to give permission for this activity.

For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.

Sponsors are not required to notify the Committee of approvals from host organisations.

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

Document	Version	Date
Investigator CV		
Response to Request for Further Information	By letter from [redacted]	10 April 2011
Participant Information Sheet: Information Sheet for Young People	2, highlighted changes	10 April 2011
Offer of Grant		19 January 2011
Participant Consent Form	2, highlighted changes	10 April 2011
Questionnaire: Strengths and Difficulties		
Questionnaire: Ruminative Response Scale		
Questionnaire: Spence Children's Anxiety Scale		
Questionnaire: Short Mood and Feelings	Self-Report	
Questionnaire: Short Mood and Feelings	Parent Report	
Questionnaire: Rey Auditory Verbal Learning Task		
Questionnaire: Means End Problem Solving Task		
Questionnaire: Non-Validated: Peer Relationships		
Questionnaire: Non-Validated: Time Budget	Child & Parent	
Questionnaire: Non-Validated: Jumping to Conclusions		
Questionnaire: Non-Validated: Life Events Measures		
Questionnaire: Non-Validated: Brief Core Schema Scales		
Protocol	1	13 January 2010
Questionnaire: Unusual Experiences	Child	
Questionnaire: Self Reflection and Insight Scale		
Questionnaire: Caregiver Demographics		
Evidence of insurance or indemnity		
Referees or other scientific critique report		
Letter of invitation to participant	1	21 December 2010

GP/Consultant Information Sheets	1	13 January 2011
REC application		
Participant Information Sheet: Information Sheet for Parents/Carers	2, highlighted changes	10 April 2011
Participant Consent Form: Assent form for Young People	2, highlighted changes	10 April 2011
Covering Letter		28 January 2011

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

After ethical review

Now that you have completed the application process please visit the National Research Ethics Service website > After Review

You are invited to give your view of the service that you have received from the National Research Ethics Service and the application procedure. If you wish to make your views known please use the feedback form available on the website.

The attached document "After ethical review – guidance for researchers" gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Progress and safety reports
- Notifying the end of the study

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

We would also like to inform you that we consult regularly with stakeholders to improve our service. If you would like to join our Reference Group please email [redacted]

11/LO/0023 Please quote this number on all correspondence

With the Committee's best wishes for the success of this project

Yours sincerely

[redacted signature]

[redacted name]
[redacted title]

[redacted contact information]

Enclosures: "After ethical review – guidance for researchers" (SL-AR2)

Copy to:

[redacted list of recipients]



Health Research Authority

NRES Committee London - Brent

80 London Road
Skipton House
London
SE1 6LH

Telephone: 02079722551

06 February 2013

Dr Suzanne Jolley
Research Clinical Psychologist
Institute of Psychiatry, King's College London
Box 7 Department of Psychology
Institute of Psychiatry, King's College London
London SE5 8AF

Dr Suzanne Jolley

Study title: Investigation into the effects of trauma in adolescent inpatients with psychosis or psychotic-like experiences exploring their emotion regulation and how to intervene in the trauma-psychosis pathway.

REC reference: 12/LO/1984

IRAS project ID: 107799

Thank you for your letter of 14 January 2013, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information has been considered on behalf of the Committee by the Chair.

We plan to publish your research summary wording for the above study on the NRES website, together with your contact details, unless you expressly withhold permission to do so. Publication will be no earlier than three months from the date of this favourable opinion letter. Should you wish to provide a substitute contact point, require further information, or wish to withhold permission to publish, please contact the Co-ordinator [redacted], [redacted].

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation, subject to the conditions specified below.

Ethical review of research sites

NHS sites

The favourable opinion applies to all NHS sites taking part in the study, subject to management

permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

Non-NHS sites

Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

Management permission ("R&D approval") should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements.

Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at [\[redacted\]](#)

Where a NHS organisation's role in the study is limited to identifying and referring potential participants to research sites ("participant identification centre"), guidance should be sought from the R&D office on the information it requires to give permission for this activity.

For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.

Sponsors are not required to notify the Committee of approvals from host organisations

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

Document	Version	Date
Covering Letter	Letter from [redacted]	30 November 2012
Evidence of insurance or indemnity	(dated 20/7/2012, 30/7/2012, 1/8/2012)	
Investigator CV	CV of [redacted]	
Other: CV	CV of [redacted]	
Other: CV	CV of [redacted]	
Other: CV	CV of [redacted]	
Other: CV	CV of [redacted]	
Other: Assent Form (young people)	1	14 September 2012
Other: DERS	Validated/Non-validated Questionnaire	

Other: CERQ-C	Validated/Non-validated Questionnaire	
Other: The Positive and Negative Affectivity Scale - Child Version	Validated/Non-validated Questionnaire	
Other: CRIES - 13	Validated/Non-validated Questionnaire	
Other: Unusual Experiences Questionnaire	Validated/Non-validated Questionnaire	
Other: Mood and Feelings Questionnaire - Child Version	Validated/Non-validated Questionnaire	
Other: The Brief Illness Perception Questionnaire	Validated/Non-validated Questionnaire	
Other: Unusual Experiences Questionnaire	Validated/Non-validated Questionnaire	
Other: CGAS	Validated/Non-validated Questionnaire	
Other: Spence children's anxiety scale	Validated/Non-validated Questionnaire	
Other: SDQ	Validated/Non-validated Questionnaire	
Participant Consent Form: Parents/carers	1	14 September 2012
Participant Information Sheet: Young People	1	14 September 2012
Participant Information Sheet: Parents/carers	3	14 January 2013
Protocol	1	11 November 2012
Questionnaire: BIPQ	2	14 January 2013
REC application	107799/389673/1/112	03 December 2012
Response to Request for Further Information	Letter from [REDACTED]	14 January 2013

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

After ethical review

Reporting requirements

The attached document "*After ethical review – guidance for researchers*" gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Notification of serious breaches of the protocol
- Progress and safety reports
- Notifying the end of the study

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

Feedback

You are invited to give your view of the service that you have received from the National Research Ethics Service and the application procedure. If you wish to make your views known please use the feedback form available on the website.

Further information is available at National Research Ethics Service website > After Review

12/LO/1984

Please quote this number on all correspondence

We are pleased to welcome researchers and R & D staff at our NRES committee members' training days – see details at <http://www.hra.nhs.uk/hra-training/>

With the Committee's best wishes for the success of this project.

Yours sincerely







Enclosures: "After ethical review – guidance for researchers" [\[SL-AR2\]](#)

Copy to: 



Health Research Authority

National Research Ethics Service

NRES Committee London - Hampstead

Barlow House
3rd Floor
4 Minshull Street
Manchester
M1 3DZ

Telephone: 0161 625 7815
Fax: 0161 625 7299

18 November 2014

[Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]

[Redacted]

Study title: Coping with Unusual Experiences for 12-18 year olds (CUES+): A transdiagnostic randomised controlled trial of the effectiveness of cognitive therapy in reducing distress associated with unusual experiences in adolescent mental health services.

REC reference: 14/LO/1970

IRAS project ID: 164065

The Research Ethics Committee reviewed the above application at the meeting held on 12 November 2014. Thank you for attending to discuss the application.

We plan to publish your research summary wording for the above study on the HRA website, together with your contact details, unless you expressly withhold permission to do so. Publication will be no earlier than three months from the date of this favourable opinion letter. Should you wish to provide a substitute contact point, require further information, or wish to make a request to postpone publication, please contact the REC Manager Dr Ashley Totenhofer [Redacted]

Ethical opinion

The members of the Committee present gave a favourable ethical opinion of the above research on the basis described in the application form, protocol and supporting documentation, subject to the conditions specified below.



Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Additional Conditions Specified by the REC:

1. Please add a line for a participant aged over sixteen to sign on the Consent Form.
2. Please provide a copy of the results from the QUES study.

You should notify the REC in writing once all conditions have been met (except for site approvals from host organisations) and provide copies of any revised documentation with updated version numbers. The REC will acknowledge receipt and provide a final list of the approved documentation for the study, which can be made available to host organisations to facilitate their permission for the study. Failure to provide the final versions to the REC may cause delay in obtaining permissions.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

Management permission ("R&D approval") should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements.

Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at <http://www.rdforum.nhs.uk>.

Where a NHS organisation's role in the study is limited to identifying and referring potential participants to research sites ("participant identification centre"), guidance should be sought from the R&D office on the information it requires to give permission for this activity.

For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.

Sponsors are not required to notify the Committee of approvals from host organisations.

Registration of Clinical Trials

All clinical trials (defined as the first four categories on question 2 of the IRAS filter page) must be registered on a publically accessible database within 6 weeks of recruitment of the first participant (for medical device studies, within the timeline determined by the current registration and publication trees).

There is no requirement to separately notify the REC but you should do so at the earliest opportunity e.g. when submitting an amendment. We will audit the registration details as part of the annual progress reporting process.

To ensure transparency in research, we strongly recommend that all research is registered but for non-clinical trials this is not currently mandatory.

If a sponsor wishes to contest the need for registration they should contact [REDACTED] the HRA does not, however, expect exceptions to be made. Guidance on where to register is provided within IRAS.

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

Ethical review of research sites

NHS Sites

The favourable opinion applies to all NHS sites taking part in the study taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

Non NHS sites

The Committee has not yet completed any site-specific assessment(s) (SSA) for the non-NHS research site(s) taking part in this study. The favourable opinion does not therefore apply to any non-NHS site at present. I will write to you again as soon as an SSA application(s) has been reviewed. In the meantime no study procedures should be initiated at non-NHS sites.

Summary of discussion at the meeting

Social or scientific value; scientific design and conduct of the study

The committee queried in private discussion whether it was possible to do CBT on patients with psychosis. They were advised that NICE guidelines recommend it but in general practice most individuals are removed from a CBT program and prescribed medication.

The committee noted in private discussion that the controls are not matched and they may lose some due to their symptoms not being controlled.

The committee noted in private discussion that there has been a previous study called CUES carried out but no data from that appeared to have been used to support this application.

The committee noted in private discussion that the assessor would be blinded to the treatment group and queried if this should truly be called a blinded study. The committee stated it should best be described as semi-blinded.

The committee commented that this is an interesting study and it is good to see research in this area as not much has been done on adolescent mental health.

The committee noted that the young people would have some sort of mental disorder and would all be offered six weeks of CBT; would this be appropriate for all of them.

You stated you are unsure, at the current time there is no evidence base and it is down to what the treating clinician feels is best. You stated you have already run a previous study in younger children where the interventions were much more tailored to the child. Following that study you have decided to move it to an older age group who are more in need of help. You have found that if problems are left longer than a number of other factors will come into play as well.

The committee noted that the CBT involved sixteen weekly sessions and queried if a teenager would be likely to attend every week.

You stated you have found that attendance is normally quite good for these young people, you are also very flexible over the location of the CBT sessions and you will provide them with a number of reminders. You also stated the interventions are tailored to the child's age and you do your best to make them engaging.

The committee noted that they will using a wait list control and queried how easy it is to derive information as there will be confounding factors such as medicine use.

You stated that they will all receive routine care which very rarely includes CBT, the intervention group gets CBT straight away whereas the wait list group gets it after six months.

The committee noted that the treatment available through CAMHS is very heterogeneous and queried how it would be possible to compare like with like as the possible treatments and drugs involved could be very different.

You stated that in theory the randomisation process should help with this and prevent any systematic effects. You have liaised with the statistics department and they have advised on their stratification method. You stated you hope that this will result in equal numbers of high (and low) risk individuals in each group.

The committee noted there were a large number of questionnaires and queried if the young people would manage to complete them all.

You stated they would, they take about forty-five minutes to complete.

The committee queried if you would look at the number who go onto be treated by the early intervention team.

You stated that this is very dependent on which borough they live in so you will record this but not use it as an outcome measure.

The committee queried what the beads game is.

You stated it is a reasoning test, research shows that individuals with psychosis or who are prone to psychosis are prone to making rash decisions.

The committee noted in private discussion that these symptoms are often transient in this age-range and raised concerns that they may be medicalising nothing. The committee also raised concerns that this could encourage dependency.

The committee noted in private discussion that the young people involved are already distressed so anything that helps is a good thing.

The committee commented in private discussion that larger numbers would be better as they would help to reduce some of the potential systematic uncertainties and they would have preferred a larger sample size.

Favourable risk benefit ratio; anticipated benefit/risks for research participants (present and future)

The committee noted that one of the outcome measures in self-harm and commented that this would hopefully be lower in the intervention group.

You stated that you would hope to have the same proportion of young people who are likely to self-harm in both groups.

The committee commented that some young people on the wait-list group might receive CBT as part of their standard care as it can be quite generic.

You stated they might, however again you would hope the randomisation would help with this. You stated that it is unusual to receive CBT for UED from the CAMHS; it would most likely be for something else.

The committee queried if they could receive it twice.

You stated it would be possible but they would be unlikely to go forward for the study if they were already receiving CBT. You stated you will look out for any systematic effects like this.

Care and protection of research participants; respect for potential and enrolled participants' welfare and dignity

The committee noted in private discussion that participants would be followed up for two months and queried if it should be for longer.

The committee commented that the research group are well experienced but they would normally expect to see some mention of safeguarding children in research with this age group.

You stated you have a risk management protocol which they will follow.

Informed consent process and the adequacy and completeness of participant information

The committee noted in private discussion that parental consent would be needed for any child aged under sixteen. The committee recognised that this could involve discussion of some quite sensitive things and queried if it would be done sensitively.

The committee noted in private discussion that the Consent Form needed a point for a young person aged over sixteen to sign.

Other ethical issues were raised and resolved in preliminary discussion before your attendance at the meeting.

Approved documents

The documents reviewed and approved at the meeting were:

Document	Version	Date
Copies of advertisement materials for research participants [Clinician Flyer/Poster]	1	02 September 2014
Covering letter on headed paper		17 October 2014
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) [Arthur J. Gallagher International]		14 July 2014
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) [Zurich Municipal]		17 July 2014
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) [RSA]		01 August 2014
GP/consultant information sheets or letters	1	02 September 2014
Letter from funder [NIHR]		21 March 2014
Letters of invitation to participant	1	02 September 2014
Non-validated questionnaire [Life events measure]	1	26 September 2014
Non-validated questionnaire [YP Time budget activity measure]	1	26 September 2014
Non-validated questionnaire [YP beliefs about problems]	1	27 September 2014
Non-validated questionnaire [Parent beliefs about problems]	1	27 September 2014
Non-validated questionnaire [Parent revised Experience of caregiving inventory (P-ECI)]	1	17 October 2014
Non-validated questionnaire [Therapist trauma assessment]	1	26 September 2014
Non-validated questionnaire [YP & parent sessional feedback]	1	17 October 2014
Participant consent form [Parent / Carer Older Child]	1	02 September 2014
Participant consent form [Child assent]	1	02 September 2014
Participant information sheet (PIS) [Parent / Carer]	1	02 September 2014
Participant information sheet (PIS) [Young Person - Short]	1	02 September 2014

Participant information sheet (PIS) [Young Person - Full]	1	02 September 2014
REC Application Form	3.5	20 October 2014
Research protocol or project proposal [Trial protocol]	1	17 October 2014
Summary CV for Chief Investigator (CI) [Personnel details]		01 September 2014
Summary, synopsis or diagram (flowchart) of protocol in non technical language [Short Summary for Clinicians]	1	02 September 2014
Validated questionnaire [Strengths & Difficulties Questionnaire]		
Validated questionnaire [Mood Questionnaire]		
Validated questionnaire [R-CADS]		
Validated questionnaire [Difficulties in Emotion Regulation Scale (DERS)]		
Validated questionnaire [Adolescent Dissociative Experiences Scale (A-DES)]		
Validated questionnaire [IAPT Mood Measures]		
Validated questionnaire [YP Unusual Experiences]		
Validated questionnaire [Child Revised Impact of Events - 13 (CRIES_13)]		
Validated questionnaire [BURT word reading]		
Validated questionnaire [YP Substance use and risk screen]		
Validated questionnaire [Child Brief Core Schema Scales (C-BCSS)]		
Validated questionnaire [Beads Game response sheet]		
Validated questionnaire [Parent PHQ-9]		
Validated questionnaire [Parent GAD-7]		
Validated questionnaire [The Short Warwick-Edinburgh Mental Wellbeing Scale (SWEMWBS)]		
Validated questionnaire [Parental Coping (COPE)]		
Validated questionnaire [Parent Expressed Emotion (FMSS)]		
Validated questionnaire [Sessional outcomes (YP & parent)]		
Validated questionnaire [Child Global Assessment Scale (CGAS)]		
Validated questionnaire [EQ-5D-Y (Child)]		
Validated questionnaire [EQ-5D-Y (Parent)]		
Validated questionnaire [Wechsler Scale]		

Membership of the Committee

The members of the Ethics Committee who were present at the meeting are listed on the attached sheet.

After ethical review

Reporting requirements

The attached document "After ethical review – guidance for researchers" gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Notification of serious breaches of the protocol
- Progress and safety reports
- Notifying the end of the study

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

User Feedback

The Health Research Authority is continually striving to provide a high quality service to all applicants and sponsors. You are invited to give your view of the service you have received and the application procedure. If you wish to make your views known please use the feedback form available on the HRA website: <http://www.hra.nhs.uk/about-the-hra/governance/quality-assurance/>

HRA Training

We are pleased to welcome researchers and R&D staff at our training days – see details at <http://www.hra.nhs.uk/hra-training/>

14/LO/1970

Please quote this number on all correspondence

With the Committee's best wishes for the success of this project.

Yours sincerely



Signed on behalf of:



E-mail: 

Enclosures:

List of names and professions of members who were present at the meeting and those who submitted written comments

"After ethical review – guidance for researchers"

Copy to:





Health Research Authority

National Research Ethics Service

NRES Committee London - Hampstead

Barlow House
3rd Floor
4 Minshull Street
Manchester
M1 3DZ

Telephone: 0161 625 7815
Fax: 0161 625 7299

02 December 2014

~~Dr Suzanne Jolley~~
~~Research Clinical Psychologist~~
~~UCLH College London~~
~~Institute of Psychiatry~~
~~12th Department of Psychiatry~~
~~10P, 18, De Crespigny Park~~
~~Denmark Hill~~
~~London~~
~~SE5 8AF~~

~~Dear Dr Jolley~~

Study title: Coping with Unusual ExperienceS for 12-18 year olds (CUES+): A transdiagnostic randomised controlled trial of the effectiveness of cognitive therapy in reducing distress associated with unusual experiences in adolescent mental health services.

REC reference: 14/LO/1970

IRAS project ID: 164065

Thank you for your email of 02 December 2014. I can confirm the REC has received the documents listed below and that these comply with the approval conditions detailed in our letter dated 18 November 2014.

Documents received

The documents received were as follows:

Document	Version	Date
Covering letter on headed paper		30 November 2014
Other [CUES Final Report to Funder]		
Participant consent form [Parent/Carer/Child over 16]	2	19 November 2014
Research protocol or project proposal	2	30 November 2014

Approved documents

The final list of approved documentation for the study is therefore as follows:

Document	Version	Date
Copies of advertisement materials for research participants [Clinician Flyer/Poster]	1	02 September 2014
Covering letter on headed paper		17 October 2014
Covering letter on headed paper		30 November 2014
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) [Arthur J. Gallagher International]		14 July 2014
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) [Zurich Municipal]		17 July 2014
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) [RSA]		01 August 2014
GP/consultant information sheets or letters	1	02 September 2014
Letter from funder [NIHR]		21 March 2014
Letters of invitation to participant	1	02 September 2014
Non-validated questionnaire [Life events measure]	1	26 September 2014
Non-validated questionnaire [YP Time budget activity measure]	1	26 September 2014
Non-validated questionnaire [YP beliefs about problems]	1	27 September 2014
Non-validated questionnaire [Parent beliefs about problems]	1	27 September 2014
Non-validated questionnaire [Parent revised Experience of caregiving inventory (P-ECI)]	1	17 October 2014
Non-validated questionnaire [Therapist trauma assessment]	1	26 September 2014
Non-validated questionnaire [YP & parent sessional feedback]	1	17 October 2014
Other [CUES Final Report to Funder]		
Participant consent form [Child assent]	1	02 September 2014
Participant consent form [Parent/Carer/Child over 16]	2	19 November 2014
Participant information sheet (PIS) [Parent/Carer]	1	02 September 2014
Participant information sheet (PIS) [Young Person - Short]	1	02 September 2014
Participant information sheet (PIS) [Young Person - Full]	1	02 September 2014
REC Application Form	3.5	20 October 2014
Research protocol or project proposal	2	30 November 2014
Summary CV for Chief Investigator (CI) [Suzanne Jolley]		01 September 2014
Summary, synopsis or diagram (flowchart) of protocol in non technical language [Short Summary for Clinicians]	1	02 September 2014
Validated questionnaire [Strengths & Difficulties Questionnaire]		
Validated questionnaire [R-CADS]		
Validated questionnaire [Difficulties in Emotion Regulation Scale (DERS)]		
Validated questionnaire [Adolescent Dissociative Experiences Scale (A-DES)]		
Validated questionnaire [IAPT Mood Measures]		
Validated questionnaire [YP Unusual Experiences]		
Validated questionnaire [Child Revised Impact of Events - 13 (CRIES_13)]		
Validated questionnaire [BURT word reading]		
Validated questionnaire [Child Brief Core Schema Scales (C-BCSS)]		
Validated questionnaire [Parent PHQ-9]		
Validated questionnaire [Parent GAD-7]		

Validated questionnaire [The Short Warwick-Edinburgh Mental Wellbeing Scale (SWEMWBS)]		
Validated questionnaire [Mood Questionnaire]		
Validated questionnaire [YP Substance use and risk screen]		
Validated questionnaire [Beads Game response sheet]		
Validated questionnaire [Parental Coping (COPE)]		
Validated questionnaire [Parent Expressed Emotion (FMSS)]		
Validated questionnaire [Sessional outcomes (YP & parent)]		
Validated questionnaire [Child Global Assessment Scale (CGAS)]		
Validated questionnaire [EQ-5D-Y (Child)]		
Validated questionnaire [EQ-5D-Y (Parent)]		
Validated questionnaire [Wechsler Scale]		

You should ensure that the sponsor has a copy of the final documentation for the study. It is the sponsor's responsibility to ensure that the documentation is made available to R&D offices at all participating sites.

14/LO/1970

Please quote this number on all correspondence

Yours sincerely



~~Dr Ashley Tolson~~
~~REC Manager~~

E-mail: ~~ash.tolson@kingstonschools.com~~

Copy to: ~~Barbara Dahill - King's College London~~

~~Ms Jonny Liebovich - King's College London~~

Appendix C: Ethical and Governance Procedures

The following agencies were contacted to confirm appropriate procedures. A summary of the correspondence is provided below.⁷

1. Health Research Authority (HRA)

The HRA confirmed if the data were anonymised, and did not contain any participant identifiable data, it would not need NHS ethical review, nor would the three original studies require a submission of Substantial Amendments.

The HRA stated as long as the research team for the original studies were the ones to anonymise the data and this was done before the data were merged, then it would not require NHS ethical review and University Ethics approval would be sufficient.

2. Kings College London- Information and Governance (I&G)

The I&G department detailed that provided the data were anonymised, it would not be considered personal data under the Data Protection Act.

Therefore, there would be no further issues under this legislation.

3. South London and Maudsley NHS Foundation Trust (SLaM) and the Institute of Psychiatry, Psychology & Neuroscience (IoPPN)- Research and Development Governance:

It was confirmed no further actions were required as the current study was a secondary data analysis design and was categorised as non-NHS research.

4. Kings College London- Ethics Office:

It was established that the current study would not require separate ethical approval from King's College London.

⁷ Viva examiners were provided with original copies of correspondence, a summary is provided in the appendix only to ensure confidentiality.

Appendix D: Approved UEL Secondary Analysis of Existing Data Ethics Application and Research Integrity Certificate.

UNIVERSITY OF EAST LONDON
School of Psychology

ETHICS APPLICATION FOR RESEARCH INVOLVING SECONDARY ANALYSIS OF EXISTING DATA

If your research solely involves access to and analysis of existing data please complete this application form electronically, fully and accurately.

Include electronic copies of document/s pertaining to the original ethics clearance of the initial dataset and other permissions as part of this **ONE DOCUMENT SAVED AS .doc**

Email your supervisor the completed application and all attachments as **ONE DOCUMENT**. INDICATE 'ETHICS SUBMISSION' IN THE SUBJECT FIELD OF THIS EMAIL.

If ethical and legal protocol is demonstrated your supervisor will type in his/her name in the 'supervisor's signature' section (5.2) and email your application to the Helpdesk for processing. You should be copied into this email so that you know your application has been submitted. It is the responsibility of students to check this. Students are not able to email applications directly to the Helpdesk themselves.

Your supervisor will let you know the outcome of your application. Do NOT access and use the intended dataset until this ethics application has been approved.

Attach a copy of this application with completed approval section (below) to your thesis/dissertation/project.

PLEASE ANSWER THE FOLLOWING

1. Briefly outline the aims/objectives of the research and what it involves:

This study proposes to explore the associations between childhood adversity (CA) and unusual experiences with distress (UEDs). Specifically, the role of affect as a mediating variable within this association, and how this differs for paranoid and hallucinatory experiences. Presently this research question has not been addressed in a Child and Adolescent Mental Health Services (CAMHS) population.

Typically, research that has explored the pathway from CA to psychotic experiences has focused on adult populations rather than child and adolescent populations leaving a gap within the literature. In order for clinicians to better support young people presenting with UEDs, we need to establish a better understanding of the psychological mechanisms involved in the association of CA with UEDs. Increased knowledge within this area will contribute to the development of interventions that reduce distress.

The study will use anonymised data collected as part of three larger studies, all considering the psychosocial correlates of childhood UEDs across community and in-patient CAMHS and spanning an age range from 8-18 years. All participants have completed measures of unusual experiences, childhood adversity and affect. A sub-sample of participants have also completed measures assessing schematic beliefs, while another sub-sample of participants have completed measures on the impact of childhood adversity. All three larger studies have received NHS ethical approval. Confirmation of NHS ethics is attached:

South London community CAMHS, aged 8-14 years (REC: 11/LO/0023)

South London in-patient CAMHS, aged 12-18 years (REC:12/LO/1984)

South London community CAMHS, aged 12-18 years (REC:14/LO/1970).

2. Give details about the data you will be accessing

(e.g. what are the participant demographics of the original data you want to use? Is the original data anonymised? Is visual data involved and, if so, what is it?)

The researcher and the chief investigator for the three larger studies, have sought guidance from the Health Research Authority (HRA) in regards to governance and ethics for the proposed study. The HRA have confirmed if the data is anonymised and contains no identifiable information, the proposed study will not require a separate NHS ethics application.

The original data sets for the three separate larger studies is managed by the guardian of the data.

The database containing the data from all three studies will be fully anonymised and will contain no identifiable information. The researcher will access and manage the anonymised data in a way that is consistent with data governance approval stated in original NHS ethics applications for the three larger studies.

Variables within the anonymised dataset will include information about:

Gender

Age,

Clinical group (community/in-patient)

Occurrence of childhood adversity (presence and type)

Unusual experiences (type of unusual experience, frequency, distress, impact)

Affect

Schematic beliefs

Impact of childhood adversity

The anonymised data set will be saved on an encrypted USB.

3. Who is the owner of the original data? (i.e. the copyright holder/s/initial researcher and their affiliation)

The owner of the original data for the larger three studies is the Chief Investigator of the studies:

████████████████████

[REDACTED]

4. Who is the guardian of the original data, if different from the above? (i.e. name of the archive through which you will access the data)

Same as above.

The guardian of the original data for the larger three studies is the Chief Investigator of the studies:

[REDACTED]

5. If you are not accessing data through a data archive have you obtained permission from the owner of the data? If not, why not? (attach evidence of permission or specify details)

Permission has been granted from the owner/guardian of the original data that anonymised data can be accessed and utilised for the purpose of a UEL DClinPsych thesis.

A letter granting permission to access the anonymised data is attached.

RESEARCHER OBLIGATIONS

1. It is your responsibility to ensure that in gaining access to and using existing data from another source that you have full and appropriate permission from the guardian of the data you intend to use and/or the owner of the data (copyright holder).
2. You must comply with any regulations of use that the guardian and owner of the data stipulate.
3. So as not to infringe copyright, the data source and the guardian and owner (copyright holder) of the data must be acknowledged in your research.
4. You must not pass on the data to other people or groups.
5. You will not need consent from research participants of exiting data where consent was gained as part of the initial data collection and where participants have agreed that their data can be used for further research. The guardian or owner of existing datasets should confirm this, and also that the data you intend to use has been properly anonymised.

I CONFIRM THAT	YES	NO
My proposed research involves no new participant recruitment and no new collection of data	x	
I have permission from the guardian or owner of the data set I intend to use and confirm that participants' consent to use their data is ongoing	x	
Relevant documentation such as permissions is attached	x	
If not, why not?		
I understand the nature of my ethical and legal obligations in this research (as above) and agree to comply	x	

SIGNATURES

THE TYPING OF FULL NAMES BELOW WILL ACTS AS SIGNATURES

Student's name/signature: Mrs Nedah Basit

Student Number: U1438305

Course: Doctorate in Clinical Psychology

Title of research: Distressing Unusual Experiences, Childhood Adversity And Affect

Date: 14/03/2016

I HAVE READ THE APPLICATION AND CONFIRM THAT THE PROPOSED RESEARCH INVOLVES NO NEW PARTICIPANT RECRUITMENT OR DATA COLLECTION

Supervisor's name/signature: David Harper

Date: 28 April 2016

ATTACH ELECTRONIC COPIES OF SUPPORTING DOCUMENTS

HERE

IF SCANNING NECESSARY DOCUMENTS IS NOT AT ALL POSSIBLE, SUBMIT TWO HARDCOPIES OF YOUR APPLICATION (INCLUDING ALL ATTACHMENTS) DIRECTLY TO THE HELPDESK. HARDCOPY APPLICATIONS ARE TO BE SIGNED BY YOU AND YOUR SUPERVISOR AND DELIVERED TO THE HELPDESK BY YOU.

For School use only

APPROVED Chair of School REC	YES	
<p>Recommendations (if any):</p> <p>Date: 04/05/2016</p>		

CERTIFICATE of ACHIEVEMENT

This is to certify that

NEDAH HASSANALI

has completed the course

Research Integrity Modules

15 September 2015

End of course quiz - Social and Behavioural Sciences Grade: 75.00 %

University of East London



Appendix E: Assent and Consent Forms, and Parent and Young Person Information Sheets for the Three Original Studies.

<p>Institute of Psychiatry at The Maudsley</p>	<p>South London and Maudsley NHS Foundation Trust</p>	<p>KING'S College LONDON <i>Founded 1829</i> University of London</p>
---	---	--

ASSENT FORM for Young People – V2 10th April 2011
Coping with Unusual Experiences (CUES)

Names of researchers: (to be inserted) **ID:**

Thank you for thinking about taking part in this project. The project must be explained to you before you agree to take part. If you have any questions please ask before you decide whether to join in. You will be given a copy of this form to keep.

Please tick the boxes, if you agree and the answer is 'yes':

1. I have read the Information Sheet for Young People, dated 10th April 2011 and someone has explained it to me and answered my questions. ☐
2. I know that I can change my mind about joining in anytime and I don't have to say why. ☐
3. I know what I say is private unless it is about somebody being hurt. ☐
4. It is OK to record the meetings with me. ☐
5. I want to join in with the project. ☐

If any answers are 'no' or you don't want to join in, don't write your name. If you do want to join in, write your name on the line.

Young person's name: _____

Date: _____

6. I have explained the study and answered any questions. ☐

Name of researcher	Date	Signature
--------------------	------	-----------

When completed, 1 copy for the family, 1 for researcher, 1 (original) to be kept in medical notes



CONSENT FORM – V2 10/4/2011

Title of project: **Coping with Unusual Experiences (CUES)**

Names of researchers: (to be inserted)

Please initial boxes:

1. I have read the information sheet dated 10/4/11 for the above project, and one of the researchers has talked to me about it. I have had enough time to think about it and ask questions. ☐
2. I understand that taking part is voluntary and that my child and I are free to withdraw at any time, without giving any reason, and without our medical care or legal rights being affected. ☐
3. I am willing for the researcher to let the team know that my child and I are taking part in the study. ☐
4. I am willing for the researcher to contact my team with any information relevant to my child's care, should this become apparent while we are taking part in the study. ☐
5. I am willing for the researchers to record this information in the team's electronic notes for my child. ☐
6. I give permission for sections of my child's medical notes to be looked at by the researchers, if it is relevant to taking part in this research (for example, to get an address, age or confirm clinical information). ☐
7. I am willing for my and my child's meetings with the therapist and researcher to be audiorecorded. ☐
8. I understand that information relating to me and my child taking part in this study will be stored in an electronic file for up to 12 years. ☐
9. I agree to take part in the above study, and for my child to take part. ☐

Name of parent/carer

Date

Signature

10. I have explained the study to this participant and answered their questions honestly and fully. ☐

Name of researcher

Date

Signature

When completed, 1 copy for the family, 1 for researcher; 1 (original) to be kept in medical notes

**Information Sheet for Parents/Carers
Version 2 – 10/4/11**

Title of study: Coping with Unusual Experiences (CUES)

We are inviting you and your child to take part in a research project.

You should only take part if you want to.

If you do not want to take part, this will not affect the usual care or services that you or your child receive in any way.

Before you decide whether you want to take part, it is important for you to understand why the research is being done and what it will involve.

Please take time to read the following information carefully.
One of our team will go through the information sheet with you and answer any questions you have. This should take about 15 minutes.
Talk to other people about the project if you want to.

- Part 1 tells you the purpose of this project and what will happen to you if you take part.
- Part 2 gives you more detailed information about how the project will be carried out.

Please ask us if there is anything that is not clear or if you would like more information.

Contact details: (insert)

REC Reference Number:

You will be given a copy of this information sheet

Part 1

What is the purpose of the project? We are trying to find new ways to help children cope with unusual experiences, emotional problems and stress. We have put together a package of strategies, which we hope will be helpful. We talk young people through the package to help them learn new ways of coping with their problems. The package is based on talking therapies which have been shown to be helpful for both adults and children reporting anxiety or worries, low mood and unusual experiences. Some children have already completed the package, and they said they liked it and found it helpful. The next step is for more children to complete the package and for us to find out how they feel and how they are coping before and after completing the package, and to compare this to children who have not completed the package.

We also want to find out more about the causes of upsetting unusual experiences in young people, so we will be asking all the children who agree to take part in the study, and their parents or carers, to answer some questions about feelings and experiences, and complete some activities about everyday problems and situations. We will then compare a group of children with unusual experiences who feel upset to children who do not have these experiences.

What do you mean by 'unusual experiences'? Lots of people have experiences which can seem unusual to others. For example, hearing voices that other people cannot hear, seeing, feeling or smelling things that other people cannot, or finding that things around them look somehow odd or different. These experiences are much more common than most people think and often do not cause any problems for the people experiencing them. They might even be enjoyable. However, sometimes these experiences can be upsetting or worrying to the person who has them, or can stop the person doing what they normally do. This in turn can interfere with school or work, friendships and family relationships. There are some strategies for dealing with both the experiences and the upset that can happen alongside them. The package is a collection of these strategies, and we would like to find out whether it helps young people to cope.

Why has my child been asked to take part? We are offering the package to children aged 8-14 who are seeking help from Child and Adolescent Mental Health Services. For the first part of this study, we are inviting all children in the service and their parents/carers to complete two questionnaires which ask about unusual experiences and feelings. This is to find out if the package will suit your child. Your child will need to be able to speak enough English to understand the package and the questionnaires. For the second part of the study, we will offer the package to children who report an unusual experience and feeling upset. We will also ask some children who do not report an unusual experience and feeling upset to complete some questionnaires and activities.

What will my child and I be asked to do?

Stage 1: If you and your child would like to take part in the study, you will first need to sign the form at the end of this sheet, to say that you are happy to go ahead. In the first stage of the study, your child will complete the two questionnaires to see if the package is suitable. These will take about 15 minutes to complete, in a short meeting with a research worker. If the package is suitable for your child, he or she will be invited to take part in the second stage of the study.

If the package is not suitable for your child (because he or she is not having unusual experiences or feeling upset), we will ask you and your child to complete some questionnaires about feelings and experiences, and complete some activities designed to show how people think about everyday problems and situations so we can find out more about what causes unusual experiences and upset. This will usually take two or three meetings or about two hours in total, with the research worker, and can be spaced over as many meetings as you like.

Stage 2: In the second stage of the study, half of the children taking part will be invited to complete the package immediately, and half will be asked to wait for 3 months before completing the package. This is so that we can see if adding the package is more helpful than just waiting for help from Child and Adolescent Mental Health Services.

To see if the package is more helpful than just waiting, it is important that the group of children who receive the package straight away and the group who have to wait for 3 months are as similar as possible. Whether your child receives the package straight away or after a wait will therefore be decided by chance (randomly), by a process a bit like tossing a coin. This will be carried out at a centre separate to the research team, who will not have any information about you or your child. You will not be able to choose which group you and your child are in, nor will any member of the team.

Completing the package will involve your child attending some meetings with a therapist. There will usually be around 9-12 meetings lasting about 45 minutes each, but we can arrange the number and length to suit your child. The meetings will usually take place weekly for between two to three months. They will be held at a location to suit you and your child. We will try hard to make appointment times convenient for you and your child. For example, wherever possible appointments will be made outside of school hours.

As a way of checking that the therapists and research workers are all working in the same way, and working with the package as well as possible, we would like to audiotape the meetings. You and your child will be asked whether this is OK each time they meet with the therapist or researcher.

You and your child will be asked to complete some questionnaires and activities at the very start of the study, after completing the package or after the 3-month wait, and again after one month, so we can see if any positive changes last after the package has been completed. The questionnaires and activities are to see whether the package is helping your child or not. This usually takes two or three meetings with a researcher, or about two hours in total. Your child will also be asked how they found the package and any changes they would suggest for the future. We will also ask you for feedback on how you have found things while your child has been attending the meetings.

Your child will be given a £5 gift voucher as a thank-you for taking part in the project.

Will my and my child's taking part in the study be kept confidential? The information you and your child give us will usually be available only to the research team. However, the researcher will share with your clinical team any important information that is relevant to the care you receive, and will let the team and your GP know that you are taking part in the study, and will note down on the team's notes system that you are taking part in the study and when they meet with you. If you or child tell us anything about someone being hurt or not safe, we will have to tell other people who are there to help with these kinds of situations. More details are included in Part 2.

How will the information we give you be kept? All the answers you and your child give to the questionnaires and activities will be kept on paper and as an electronic file. The recordings will be kept as electronic files. They will be kept securely and anonymously and will be identified only by a number, not by your name. Your name will be kept separately, with the number, on paper, so that we can identify your questionnaires and recordings in the future if we need to (for example, if you decide you no longer want to be part of the study). We will only identify your questionnaires for a reason like this. Your details will be kept for up to 12 years, and then will be confidentially destroyed. We will keep a completely anonymous copy of the electronic file indefinitely, from which you will not be able to be identified at all. At the very end of the study, once we have seen a number of children, you and your child will be given a summary of the results.

Is there any risk from taking part? We do not think that the package will be harmful in any way. We want it to be helpful and it has been designed to be fun. The questionnaires and activities are all either designed for children and their parents or carers, or especially adapted for children, and have been approved by researchers who have many years experience of working with children. However if you or your child are distressed in any way by taking part, the therapists working on the study are qualified to deal with this sensitively and appropriately. If this happens, please talk to the researcher, or to one of the therapists (Contact details to be inserted).

Are there any benefits of taking part? We hope that the children will enjoy taking part in the study and will learn some useful strategies for coping with day to day stresses. Both children and adults also sometimes find completing the questionnaires interesting and helpful.

Do I have to take part?

It is up to you and your child to decide whether or not to take part in this study. If you do decide to take part you are still free to stop at any time and without giving any reasons. This will not affect any other help or support that you or your child will be offered.

What happens when the project stops?

When you have finished taking part in the research, you will carry on as usual seeing the team where you were originally looking for help. If this help is available before the project finishes, you will be able to still carry on with the project if you would like to. We will ask you and your child if you would be willing to be contacted regarding future projects, and if you would, we will keep your name and contact details. You will be able to ask us not to contact you at any time, and this will not affect you in any other way. This project is only running for three years from 2011, and we cannot guarantee that the package will still be available after this.

This completes Part 1 of the Information Sheet.

If the information in Part 1 has interested you and you are thinking about taking part, please continue to read the additional information in Part 2 before making any decision.

Part 2

What if there is a problem?

What if relevant new information becomes available? Sometimes we get new information during a project. If we find out anything new about any of the questionnaires or the package which means it might be harmful or upsetting for you or your child in any way, we will tell you both at once and you can decide whether or not you want to carry on.

What will happen if I, or my child, no longer want to carry on with the study? If you decide you no longer want to take part, you should let us know at once. A member of the research team will talk to you about which parts you no longer want to be involved in (for example, you might not want to come for the package, but feel OK with the questionnaires). We would like to still keep the information you have already given us if this is possible, but we will check this with you as well. You can tell us that you would like us not to keep any information at all about you, and in this case we will destroy all our copies of the information you have given us. This will not affect any other care you or your child might be offered, or your rights in any other way.

Complaints: If you have a concern about any aspect of this study, you should ask to speak with the researchers who will do their best to answer your questions (Contact details). If you remain unhappy and wish to complain formally, you can do this through the NHS Complaints Procedure (Contact details).

Harm: In the event that something does go wrong and you or your child are harmed during the research study there are no special compensation arrangements. If you are harmed and this is due to someone's negligence then you may have grounds for a legal action for compensation against your local NHS Trust but you may have to pay your legal costs. The normal National Health Service complaints mechanisms will still be available to you (if appropriate).

Will my taking part in this study be kept confidential? All information which is collected about you during the course of the research will be kept strictly confidential. All your answers to the questionnaires and the activities will be kept on paper and on an electronic database. The recordings will be kept as electronic files. They will be kept securely and anonymously and will be identifiable only by a number, not by your name. Your name will be kept separately, with the number, on the database and on paper, so that we can identify your questionnaires and recordings in the future if we need to (for example, if you decide you no longer want to be part of the study). We will only identify your questionnaires for a reason like this. Paper copies of questionnaires will be kept securely by the researchers in a locked filing cabinet in a locked office. Your details will be kept for up to 12 years, and then will be confidentially destroyed. We will keep a completely anonymised copy of the database indefinitely, from which you and your child will not be able to be identified at all.

The information you give will usually be available only to the research team. However, the researcher will let your team know that you are taking part in the study, and will share with your clinical team any important information that is relevant to the care you receive. In addition, should you give any information, such as criminal disclosures, or information relating to your own, your child's or others safety, which requires action, including passing on information to others, we are legally obliged to pass this information on to services who are able to deal with these concerns.

The recordings will all be confidential and will be kept without your child's name or details in a locked filing cabinet in a locked office, except when the therapist is carrying them to and from meetings. They will be available only to members of the research team.

What will happen to the results of the research study? We intend to publish the results of the research. You will not be personally identified in any report/publication. We sometimes use quotes from participants when we write about the research. In this case we will tell you what we want to write and where it will be seen and check that you agree.

Who is organising and funding the research? The research is organised by the team, who are members of academic and clinical staff at the Institute of Psychiatry, King's College London and the South London & Maudsley NHS Trust. The research is funded by the Guy's & St. Thomas' Charity.

Who has reviewed the study? The study has been reviewed by the (REC details and reference number).

How can I take part? If you would like to take part in this project, please complete the attached consent form. If you have any questions or concerns about taking part in this study please contact the researchers below.

Contact Details: (Insert)

Information Sheet for Young People
V2 10th April, 2011

Coping with Unusual Experiences (CUES)

- ★ **What is this about?** We are asking if you want to be part of a project to find ways to help children or teenagers who have unusual experiences.
- ★ **Who are you? What do you do?** We work with children, teenagers and adults who are feeling upset or having problems and talk to them to find out what is upsetting them, then we help them find new ways to handle it.
- ★ **What are 'unusual experiences'?** Lots of children, teenagers and adults have these, and often they are not upsetting at all, but sometimes they can be. They are things like:
 - ☞ *Hearing or seeing things that other people can't*
 - ☞ *Feeling like something weird is going on that other people don't understand*
 - ☞ *Feeling like someone is watching, or following you*
- ★ **Why are you asking me?** We are asking all children and teenagers aged 8-14 who come to this centre.
- ★ **What if I say yes?** First, we will ask you and your parent or carer some questions. This is to try to find out more about what causes unusual experiences and what makes them upsetting.
- ★ **What happens next?** If you say you have unusual experiences and you are feeling upset, we will ask you if you want to try out some new ways of trying to handle them.
- ★ **What if I say yes?** You will meet with someone who will talk to you about what is happening and ways to help. You will have

up to 10 meetings, at a time and place that is good for you and your family. So we can see if the meetings are helpful, some people will have the meetings straight away, and some people will have them after 3 months.

- ★ **Will I have to wait?** You might. It is worked out by chance – a bit like tossing a coin. We can't choose who waits and who doesn't.
- ★ **Can I say no?** Yes, you can. It is up to you whether you join in. If you don't want to that is fine – no-one will mind and it won't change anything at school, at home or at the centre. Even if you say yes, you can still change your mind whenever you want and you don't need to tell us why.
- ★ **Who will know about this?** The things you tell us are private, but we will tell other people who are there to help if we are worried about whether you or someone else is safe.
- ★ **Can I find out more?** Yes. Ask your parents or carer. We have given them a longer sheet like this one that you can read if you want. If they agree, we can tell you more about joining in on the phone, or we can meet you to tell you more. You can meet us on your own or with your family – it is up to you and your parent or carer.

😊 **Thanks for reading the sheet** 😊

ISIS Study: Inpatient Stay Improvement Study

ASSENT FORM for Young People – V1 14th September 2012

Names of researchers:

ID:

Thank you for thinking about taking part in this project. The project must be explained to you before you agree to take part. If you have any questions please ask before you decide whether to join in. You will be given a copy of this form to keep.

Please tick the boxes, if you agree and the answer is 'yes':

1. I have read the Information Sheet for Young People, dated 14th September 2012, and someone has explained it to me and answered my questions. ☐
2. I know that I can change my mind about joining in any time and I don't have to say why. ☐
3. I know what I say is private unless it is about somebody being hurt. ☐
4. It is OK to record the meetings with me. ☐
5. I want to join in with the project. ☐

If any answers are 'no' or you don't want to join in, don't write your name.

If you do want to join in, write your name on the line.

Young person's name: _____

Date:

6. I have explained the study and answered any questions. ☐

Name of researcher

Date

Signature

When completed, 1 copy for the family, 1 for researcher; 1 (original) to be kept in medical notes

CONSENT FORM – V1 14th September 2012
ISIS Study: Inpatient Stay Improvement Study
Names of researchers:

Please initial boxes:

1. I have read the information sheet dated 14/09/11 for the above project, and one of the researchers has talked to me about it. I have had enough time to think about it and ask questions. ☐
2. I understand that taking part is voluntary and that my child and I are free to withdraw at any time, without giving any reason, and without our medical care or legal rights being affected. ☐
3. I am willing for the researchers to let the team know that my child and I are taking part in the study. ☐
4. I am willing for the researchers to discuss with the ward team any information relevant to my child's care, should this become apparent while we are taking part in the study. ☐
5. I am willing for the researchers to record this information in the team's electronic notes for my child. ☐
6. I give permission for sections of my child's medical notes to be looked at by the researchers, if it is relevant to taking part in this research (for example, to get an address, age or confirm clinical information). ☐
7. I am willing for my child's meetings with the researcher to be audiorecorded. ☐
8. I understand that information relating to my child taking part in this study will be stored in an electronic file for up to 12 years. ☐
9. I agree for my child to take part in the above study ☐

Name of parent/carer	Date	Signature
----------------------	------	-----------

10. I have explained the study to this participant and answered their questions honestly and fully. ☐

Name of researcher	Date	Signature
--------------------	------	-----------

When completed, 1 copy for the family, 1 for researcher; 1 (original) to be kept in medical notes

ISIS Study: Inpatient Stay Improvement Study

We are inviting you and your child to take part in a research project.

You should only take part if you want to.

If you do not want to take part, this will not affect the usual care or services that you or your child receive in any way.

Before you decide whether you want to take part, it is important for you to understand why the research is being done and what it will involve.

Please take time to read the following information carefully.

One of our team will go through the information sheet with you and answer any questions you have. This should take about 15 minutes.

Talk to other people about the project if you want to.

- Part 1 tells you the purpose of this project and what will happen to you if you take part.
- Part 2 gives you more detailed information about how the project will be carried out.

Please ask us if there is anything that is not clear or if you would like more information.

Contact details:

REC Reference Number:

You will be given a copy of this information sheet

Part 1

What is the purpose of the project? We want to find out how things change for teenagers while they are in hospital. We also want to find out more about the kind of unusual and / or difficult experiences young people may have, how they handle them, and what extra help they might need to deal with them.

We have put together some questionnaires which ask about different experiences and what young people do to cope with them. We will ask all young people admitted to the ward to fill in the questionnaires and then ask them again when they are ready to leave the ward to see if this has changed in any way.

For all of the young people we speak to who have had unusual and difficult experiences, we will ask if they would like to take part in the second part of the study, which will ask more about the problems and what makes them better or worse, to try to find out what else might help. Based on this, we will ask them if they would like to try out some strategies from a package, which we hope will be helpful. We will talk these young people through the package to help them learn new ways of coping with their experiences. This will be a new package put together based on talking therapies which have been shown to be helpful for adults and children reporting either difficult or unusual experiences. We would like to find out if these strategies can be put together to create a package that is helpful for young people and for us to find out how they feel and how they are coping before and after completing the package.

What do you mean by 'unusual experiences'? Lots of people have experiences which can seem unusual to others. For example, hearing voices that other people cannot hear, seeing, feeling or smelling things that other people cannot, or finding that things around them look somehow odd or different. These experiences are much more common than most people think and often do not cause any problems for the people experiencing them. They might even be enjoyable. However, sometimes these experiences can be upsetting or worrying to the person who has them, or can stop the person doing what they normally do. This in turn can interfere with school or work, friendships and family relationships.

What do you mean by 'difficult experiences'? Almost three quarters of young people have had at least one 'difficult experience'. 'Difficult experiences' may have been a one-off event like seeing someone close dying, being assaulted or being involved in a road traffic accident. It may also have something that carries on happening such as violence in the home, bullying, being involved in gang-related activities, being hurt or seeing somebody else being seriously hurt in any other way. These experiences may not have any lasting effects, but often, afterwards, people may feel like the event is happening again, or feel very easily upset and not know how to handle it, or feel afraid to go near any reminder of the event, or sometimes even to think about it. Sometimes unusual experiences can be related to these kinds of events.

Why has my child been asked to take part? We are asking all young people who have been admitted to the ward to complete some questionnaires which ask about unusual and difficult experiences and how they cope with them. For the second part of the study we will ask a few of the young people who reported both unusual and difficult experiences if they would like to tell us more about their experiences, try out the package and then tell us which bits of it they found helpful.

What will my child be asked to do?

Stage 1: If your child would like to take part in the study, you will first need to sign the form at the end of this sheet, to say that you are happy for them to go ahead. In the first stage of the study, your child will complete the some questionnaires. These will take about 45 minutes to complete and one of the researchers will be there to help them if they request this.

Stage 2: In the second stage of the study, up to 10 of the young people will be asked if they would like to work through the package with one of the researchers. This will take place on the ward over 4-6 weekly sessions of approximately 45mins.

Your child will be asked to complete some of the questionnaires again when they are ready to leave hospital. This is to find out if there have been any positive changes from your child being on the ward (and / or taking part in the extra package). If your child had the package then they will be asked how they found it and any changes they would suggest for the future.

Your child will be given a £5 gift voucher as a thank-you for taking part in the project.

Will my and my child's taking part in the study be kept confidential? The information your child gives us will usually be available only to the research team. However, the researcher will share with your child's clinical team any important information that is relevant to the care your child receives and will note down on the team's notes system that your child is taking part in the study and when they meet with them. If you or child tell us anything about someone being hurt or not safe, we will have to tell other people who are there to help with these kinds of situations. More details are included in Part 2.

How will the information we give you be kept? All the answers your child gives to the questionnaires and activities will be kept on paper and as an electronic file. The recordings will be kept as electronic files. They will be kept securely and anonymously and will be identified only by a number, not by your name. Your child's name will be kept separately, with the number, on paper, so that we can identify their questionnaires and recordings in the future if we need to (for example, if you decide you no longer want them to be part of the study). We will only identify your child's questionnaires for a reason like this. Your child's details will be kept for up to 12 years, and then will be confidentially destroyed. We will keep a completely anonymous copy of the electronic file indefinitely, from which your child will not be able to be identified at all. At the very end of the study, once we have seen a number of children, you and your child will be given a summary of the results.

Is there any risk from taking part? We do not think that this study will be harmful in any way. We want it to be helpful and the questionnaires and package have all been designed for children and have been approved by researchers who have many years experience of working with children. However if your child is distressed in any way by taking part, the therapists working on the study are qualified to deal with this sensitively and appropriately. If this happens, please talk to the researcher, or to one of the therapists (Contact details to be inserted).

Are there any benefits of taking part? We hope to find out more about how difficult and unusual experiences are related and how young people cope with them so we can help young people to develop positive coping strategies. Children also sometimes find completing the questionnaires interesting and helpful.

Do I have to take part?

It is up to you and your child to decide whether or not to take part in this study. If your child does decide to take part they are still free to stop at any time and without giving any reasons. This will not affect any other help or support that your child will be offered.

What happens when the project stops?

We will ask you and your child if you would be willing to be contacted regarding future projects, and if you would, we will keep your name and contact details. You will be able to ask us not to contact you at any time, and this will not affect you in any other way.

This completes Part 1 of the Information Sheet.

If the information in Part 1 has interested you and you are thinking about taking part, please continue to read the additional information in Part 2 before making any decision.

Part 2

What if there is a problem?

What if relevant new information becomes available? Sometimes we get new information during a project. If we find out anything new about any of the questionnaires or the package which means it might be harmful or upsetting for you or your child in any way, we will tell you both at once and you can decide whether or not you want to carry on.

What will happen if my child no longer wants to carry on with the study? If your child decides they no longer want to take part, you or they should let us know at once. A member of the research team will talk to your child about which parts they no longer want to be involved in (for example, they might not want to do the package, but feel OK with the questionnaires). We would like to still keep the information they have already given us if this is possible, but we will check this with you both as well. You can tell us that you would like us not to keep any information at all about your child, and in this case we will destroy all our copies of the information they have given us. This will not affect any other care your child might be offered, or your rights in any other way. The only exception to this will be information that is important for your child's care, or that relates to any risk of somebody being hurt or unsafe. We will sometimes have to hand this information over to the clinical team, and will be unable to destroy it because of its importance.

Complaints: If you have a concern about any aspect of this study, you should ask to speak with the researchers who will do their best to answer your questions (Contact details). If you remain unhappy and wish to complain formally, you can do this through the NHS Complaints Procedure (Contact details).

Harm: In the event that something does go wrong and your child is harmed during the research study there are no special compensation arrangements. If your child is harmed and this is due to someone's negligence then you may have grounds for a legal action for compensation against your local NHS Trust but you may have to pay your legal costs. The normal National Health Service complaints mechanisms will still be available to you (if appropriate).

Will my child's taking part in this study be kept confidential? All information which is collected about your child during the course of the research will be kept strictly confidential. All their answers to the questionnaires will be kept on paper and on an electronic database. The recordings will be kept as electronic files. They will be kept securely and anonymously and will be identifiable only by a number, not by name. Your child's name will be kept separately, with the number, on the database and on paper, so that we can identify their questionnaires and recordings in the future if we need to (for example, if they decide they no longer want to be part of the study). We will only identify your child's questionnaires for a reason like this. Paper copies of questionnaires will be kept securely by the researchers in a locked filing cabinet in a locked office. Your child's details will be kept for up to 12 years, and then will be confidentially destroyed. We will keep a completely anonymised copy of the database indefinitely, from which you and your child will not be able to be identified at all.

The information your child gives will usually be available only to the research team. However, the researcher will let the team know that your child is taking part in the

study, and will share with the clinical team any important information that is relevant to the care they receive. In addition, should your child give any information, such as criminal disclosures, or information relating to your own, your child's or others safety, which requires action, including passing on information to others, we are legally obliged to pass this information on to services who are able to deal with these concerns.

The recordings will all be confidential and will be kept without your child's name or details in a locked filing cabinet in a locked office, except when the therapist is carrying them to and from meetings. They will be available only to members of the research team.

What will happen to the results of the research study? We intend to publish the results of the research. Your child will not be personally identified in any report/publication. We sometimes use quotes from participants when we write about the research. In this case we will tell you what we want to write and where it will be seen and check that you agree.

Who is organising and funding the research? The research is organised by the team, who are members of academic and clinical staff at the Institute of Psychiatry, King's College London and the South London & Maudsley NHS Foundation Trust.
Who has reviewed the study? The study has been reviewed by the (REC details and reference number).

How can I take part? If you would like to take part in this project, please complete the attached consent form. If you have any questions or concerns about taking part in this study please contact the researchers below.

Contact Details: (Insert)

**Information Sheet for Young People
V1 14th September 2012**

ISIS Study: Inpatient Stay Improvement Study

- ★ **What is this about?** We are asking if you want to be part of a project to find out how things change for teenagers while they are in hospital, and especially about unusual or difficult experiences that teenagers may have and how they cope with them.
- ★ **Who are you? What do you do?** We work with children, teenagers and adults who are feeling upset or having problems and talk to them to find out what is upsetting them, then we help them find new ways to handle it.
- ★ **What are 'unusual experiences'?** Lots of children, teenagers and adults have these, and often they are not upsetting at all, but sometimes they can be. They are things like:
 - ☞ *Hearing or seeing things that other people can't*
 - ☞ *Feeling like something weird is going on that other people don't understand*
 - ☞ *Feeling like you are being watched or followed*
- ★ **What are 'difficult experiences'?** Lots of children, teenagers and adults have these and they are often very upsetting. They are things like:
 - ☞ *Being hurt or mistreated*
 - ☞ *Being in an accident*
 - ☞ *Being bullied*

- ★ **Why are you asking me?** We are asking all young people who come to stay on the ward to take part in this project.
- ★ **What if I say yes?** First, we will ask you some questions. This is to find out more about what kinds of problems you are having and how you are managing them.
- ★ **What happens next?** For most young people we will just ask you to answer some of the questions again when you are ready to leave hospital to see if anything has changed following your stay on the ward. If you say in the questionnaires that you have unusual and difficult experiences, we will ask you if you want to talk more about these and try out some strategies to deal with these experiences.
- ★ **What if I say yes?** You will meet with someone who will talk to you about what has been happening and ways to help. You will have up to 6 meetings on the ward with one of the researchers.
- ★ **Can I say no?** Yes, you can. It is up to you whether you join in. If you don't want to that is fine – no-one will mind and it won't change anything on the ward. Even if you say yes, you can still change your mind whenever you want and you don't need to tell us why.
- ★ **Who will know about this?** The things you tell us are private, but we will tell other people who are there to help if we are worried about whether you or someone else is safe.
- ★ **Can I find out more?** Yes. Ask your parents or carer. We have given them a longer sheet like this one that you can read if you want. If they agree, we can tell you more about joining in on the phone, or we can meet you to tell

you more. You can meet us on your own or with your family – it is up to you and your parent or carer.

😊 **Thanks for reading the sheet** 😊

Young person ASSENT form (Version 1 – 2/9/14)

Title of study: Coping with Unusual ExperienceS for 12-18 year olds (CUES+)

Names of researchers: (to be inserted)

ID:

Thank you for thinking about taking part in this project. The project must be explained to you before you agree to take part. If you have any questions please ask before you decide whether to join in. You will be given a copy of this form to keep.

Please tick the boxes, if you agree and the answer is 'yes':

YES

1. I have read the Information Sheet for Young People, dated 2/9/14, and someone has explained it to me and answered my questions.

☐

2. I know that I can change my mind about joining in anytime and I don't have to say why.

☐

3. I know that the researchers work with my care team and will let them know what I say. I know that they might need to tell other people who are there to help if it is about somebody being hurt.

☐

4. It is OK to audiorecord the meetings with me.

☐

5. I want to join in with the project.

☐

If any answers are 'no' or you don't want to join in, don't write your name. If you do want to join in, write your name on the line.

Young person's name: _____

Date: _____

6. I have explained the study and answered any questions.

☐

Name of researcher

Date

Signature

When completed, 1 copy for the family, 1 for researcher; 1 (original) to be kept in medical notes

CONSENT form (Version 2 – 19/11/14)

Title of study: Coping with Unusual ExperienceS for 12-18 year olds (CUES+)

Names of researchers: (to be inserted)

ID:

Please initial boxes:

1. I have read the information sheet dated 2/9/14 for the above project, and one of the researchers has talked to me about it. I have had enough time to think about it and ask questions. ☐
2. I understand that taking part is voluntary and that I/my child/the child I am responsible for am/is free to withdraw at any time, without giving any reason, and without my/our medical care or legal rights being affected. ☐
3. I am willing for the researcher to let the team know that I/my child/the child I am responsible for am/is taking part in the study. ☐
4. I am willing for the researcher to contact the team with any information relevant to their care of me/my child/the child I am responsible for, should this become apparent while I/we are taking part in the study. ☐
5. I am willing for the researchers to record this information in the team's electronic notes. ☐
6. I give permission for sections of the medical notes for me/my child/the child I am responsible for to be looked at by the researchers, if it is relevant to taking part in this research (for example, to get an address, age or confirm clinical information). ☐
7. I am willing for meetings with me/my child/the child I am responsible for and the therapist or researcher to be audiorecorded. ☐
8. I understand that information relating to me/my child/the child I am responsible for taking part in this study will be stored in an electronic file for up to 12 years. ☐
9. I agree to take part in the above study, for myself/my child/the child I am responsible for. ☐

Name of young person (if over 16)/parent/carer

Date

Signature

10. I have explained the study to this participant and answered their questions honestly and fully.

☐

Name of researcher

Date

Signature



Full Information Sheet (parent/carer) Version 1 – 2/9/14

**Title of study: Coping with Unusual ExperienceS for 12-18 year olds
(CUES+)**

We are inviting you and your child/the child you are responsible for to take part in a research project.

You should only take part if you want to.

If you do not want to take part, this will not affect the usual care or services that you or your child/the child you are responsible for receive in any way.

Before you decide whether you want to take part, it is important for you to understand why the research is being done and what it will involve.

Please take time to read the following information carefully.

If you would like to take part, one of our team will go through the information sheet with you and answer any questions you have. This should take about 15 minutes.

Talk to other people about the project if you want to.

- Part 1 tells you the purpose of this project and what will happen to you if you take part.
- Part 2 gives you more detailed information about how the project will be carried out.

Please ask us if there is anything that is not clear or if you would like more information.

Contact details: (insert)

REC Reference Number:

You will be given a copy of this information sheet

Part 1

What is the purpose of the project? We are trying to find new ways to help young people cope with unusual experiences, emotional problems and stress. We have put together a package of strategies, which we hope will be helpful. We talk young people through the package to help them learn new ways of coping with their problems. The package is based on talking therapies which have been shown to be helpful for both adults and children reporting anxiety or worries, low mood and unusual experiences. Some young people have already completed the package, and they said they liked it and found it helpful. The next step is for more young people to complete the package and for us to find out how they feel and how they are coping before and after completing the package, and to compare this to young people who have not completed the package.

We also want to find out more about the causes of upsetting unusual experiences in young people, so we will be asking all the young people who agree to take part in the study, and their parents or carers, to answer some questions about feelings and experiences, and complete some activities about everyday problems and situations.

What do you mean by 'unusual experiences'? Lots of people have experiences which can seem unusual to others. For example, hearing voices that other people cannot hear, seeing, feeling or smelling things that other people cannot, or finding that things around them look somehow odd or different. These experiences are much more common than most people think and often do not cause any problems for the people experiencing them. They might even be enjoyable. However, sometimes these experiences can be upsetting or worrying to the person who has them, or can stop the person doing what they normally do. This in turn can interfere with school or work, friendships and family relationships. We have called these 'unusual experiences with distress' or UEDs. There are some strategies for dealing with UEDs. The package is a collection of these strategies, and we would like to find out whether it helps young people to cope.

Why has my child/the child I am responsible for been asked to take part? We are offering the package to young people aged 12-18 who are seeking help from Child and Adolescent Mental Health Services. All young people in the service are completing a questionnaire which asks about UEDs, as part of the service's routine assessment. If your child reports UEDs, we will give you both a sheet about the project. We will be able to meet with you to talk about the project if you would like to find out more.

What will we be asked to do? If you and your child/the child you are responsible for would like to take part in the study, you will first need to sign the form at the end of this sheet, to say that you are happy to go ahead. We will ask you both to complete some questionnaires about feelings and experiences, and complete some activities designed to show how people think about everyday problems and situations so we can find out more about what causes unusual experiences and upset. This will usually take one or two meetings or about two hours in total, with a research worker, and can be spaced over as many meetings as you like. Half of the young people

taking part will be invited to complete the package immediately, and half will be asked to wait for 6 months before completing the package. This is so that we can see if adding the package is more helpful than the usual help from Child and Adolescent Mental Health Services. You/your child/the child you are responsible for will carry on receiving the usual help from Child and Adolescent Mental Health Services as well as the package. Whether your child/the child you are responsible for receives the package straight away or after a wait will be decided by chance (randomly), by a process a bit like tossing a coin. This will be carried out at a centre separate to the research team, who will not have any information about any participants in the study. No-one will be able to choose which group they are in, nor will any member of the team.

Completing the package will involve your child/the child you are responsible for attending some meetings with a therapist. There will usually be up to 16 meetings lasting about 45 minutes each, but we can arrange the number and length to suit each child. The meetings will usually take place weekly for four months. Most meetings will be for the young person individually, but we will also offer up to four family support meetings as well. Meetings will be held at a location to suit both parents/carers and children, and we will try hard to make appointment times convenient for everyone. For example, wherever possible appointments will be made outside of school hours.

As a way of checking that the therapists and research workers are all working in the same way, and working with the package as well as possible, we would like to audiorecord the meetings. Each child and parent/carer will be asked whether this is OK each time they meet with the therapist or researcher.

Each parent/carer and child will be asked to complete the questionnaires and activities at the very start of the study, after completing the package or after four months, and again after another two months, so we can see if any positive changes last after the package has been completed. The questionnaires and activities are to see whether the package is helping or not. Parents/carers and children will also be asked how they found the package and any changes they would suggest for the future. We will also ask you for feedback on how you have found things while your child/the child you are responsible for has been attending the meetings.

Each child will be given a £5 gift voucher every time they complete the questionnaires, as a thank-you for taking part in the project.

Will taking part in the study be kept confidential? The information each child and parent/carer gives us will usually be available only to the research team. However, the researcher will: share with the clinical team any important information that is relevant to the care they are providing to the young person/parent/carer; let the team and the young person's GP know that you are taking part in the study; note down on the team's notes system that you are taking part in the study and when they meet with you. If and young person, parent or carer tells us anything about someone being hurt or not safe, we will have to tell other people who are there to help with these kinds of situations. More details are included in Part 2.

How will the information we give you be kept? All the answers that young people, parents and carers give to the questionnaires and activities will be kept on paper and as an electronic file. The recordings will be kept as electronic files. They will be kept securely and anonymously and will be identified only by a number, not by your name. Your name will be kept separately, with the number, on paper, so that we can identify your questionnaires and recordings in the future if we need to (for example, if you decide you no longer want to be part of the study). We will only identify your questionnaires for a reason like this. Your details will be kept for up to 12 years, and then will be confidentially destroyed. We will keep a completely anonymous copy of the electronic file indefinitely, from which you will not be able to be identified at all. At the very end of the study, once we have seen a number of young people, each child and parent/carer can have a summary of the results, if you would like.

Is there any risk from taking part? We do not think that the package will be harmful in any way. We want it to be helpful and it has been designed to be interesting and enjoyable for young people. The questionnaires and activities are all either designed for young people and their parents or carers, or especially adapted for young people, and have been approved by researchers who have many years experience of working with young people. However if a young person, parent or carer is distressed in any way by taking part, the therapists working on the study are qualified to deal with this sensitively and appropriately. If this happens, please talk to the researcher, or to one of the therapists (Contact details to be inserted).

Are there any benefits of taking part? We hope that the young people will enjoy taking part in the study and will learn some useful strategies for coping with day to day stresses. Both young people and adults also sometimes find completing the questionnaires interesting and helpful.

Do I have to take part?

It is up to each young person/parent/carer to decide whether or not to take part in this study. If you do decide to take part you are still free to stop at any time and without giving any reasons. This will not affect any other help or support that you or your child/the child you are responsible for will be offered.

What happens when the project stops?

When you have finished taking part in the research, you will carry on as usual seeing the team where you were originally looking for help. If this help is available before the project finishes, you will be able to still carry on with the project if you would like to. We will ask each child and parent/carer if they would be willing to be contacted regarding future projects, and if you would, we will keep your name and contact details. You will be able to ask us not to contact you at any time, and this will not affect you in any other way. This project is only running for three years from 2015, and we cannot guarantee that the package will still be available after this.

This completes Part 1 of the Information Sheet. If the information in Part 1 has interested you and you are thinking about taking part, please continue to read the additional information in Part 2 before making any decision.

Part 2

What if there is a problem?

What if relevant new information becomes available? Sometimes we get new information during a project. If we find out anything new about any of the questionnaires or the package which means it might be harmful or upsetting for you or your child/the child you are responsible for in any way, we will tell you both at once and you can decide whether or not you want to carry on.

What will happen if we no longer want to carry on with the study? If you decide you no longer want to take part, you should let us know at once. A member of the research team will talk to you about which parts you no longer want to be involved in (for example, you might not want to come for the package, but feel OK with the questionnaires). We would like to still keep the information you have already given us if this is possible, but we will check this with you as well. You can tell us that you would like us not to keep any information at all about you, and in this case we will destroy all our copies of the information you have given us, unless there is a clinical need to keep it (for example, if it contains important information about harm to you or anybody else). This will not affect any other care you or your child/the child you are responsible for might be offered, or your rights in any other way.

Complaints: If you have a concern about any aspect of this study, you should ask to speak with the researchers who will do their best to answer your questions (Contact details). You can speak to the clinical team and senior members of the service (Contact details). If you remain unhappy and wish to complain formally, you can do this through the NHS Complaints Procedure (Contact Patient Advice and Liaison Service (PALS) on: 0800 731 2864 or pals@slam.nhs.uk).

Harm: In the event that something does go wrong and you or your child/the child you are responsible for are harmed during the research study there are no special compensation arrangements. If you are harmed and this is due to someone's negligence then you may have grounds for a legal action for compensation against your local NHS Trust but you may have to pay your legal costs. The normal National Health Service complaints mechanisms will still be available to you (if appropriate).

Will my taking part in this study be kept confidential? All information which is collected about you during the course of the research will be kept strictly confidential. All your answers to the questionnaires and the activities will be kept on paper and on an electronic database. The recordings will be kept as electronic files. They will be kept securely and will be identifiable only by a number, not by your name. Your name will be kept separately, with the number, on the database and on paper, so that we can identify your questionnaires and recordings in the future if we need to (for example, if you decide you no longer want to be part of the study). We will only identify your questionnaires for a reason like this. Paper copies of questionnaires will be kept securely by the researchers in a locked filing cabinet in a locked office. Your details will be kept for up to 12 years, and then will be confidentially destroyed. We will keep a completely anonymised copy of the database indefinitely, from which young people and parents/carers will not be able to be identified at all.

The information you give will usually be available only to the research team. However, the researcher will let your team know that you are taking part in the study, and will share with your clinical team any important information that is relevant to the care you receive. In addition, should you give any information, such as criminal disclosures, or information relating to your own, a child's or others' safety, which requires action, including passing on information to others, we are legally obliged to pass this information on to services who are able to deal with these concerns.

The recordings will all be confidential and will be kept without any names in a locked filing cabinet in a locked office, except when the therapist is carrying them to and from meetings. They will usually be available only to members of the research team.

What will happen to the results of the research study? We intend to publish the results of the research. You will not be personally identified in any report/publication. We sometimes use quotes from participants when we write about the research. In this case we will tell you what we want to write and where it will be seen and check that you agree.

Who is organising and funding the research? The research is organised by the team, who are members of academic and clinical staff at the Institute of Psychiatry, Psychology and Neuroscience, King's College London and the South London & Maudsley NHS Foundation Trust. The research is funded by the National Institute of Health Research.

Who has reviewed the study? The study has been reviewed by the (REC details and reference number).

How can I take part? If you would like to take part in this project, please complete the attached consent form. If you have any questions or concerns about taking part in this study please contact the researchers below.

Contact Details: (Insert)

Appendix F: Histograms

